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Table of Contents

Table of Indicators

Introduction

Québec's Education System: An Overview

1 Financial Resources Allocated to Education

2 Activities

3 Results–Educational Outcomes

4 Results–Evaluation of Learning

5 Results–Graduation

6 The Labour Market

Statistical Appendix

Tables on enrollment, personnel, diplomas and schooling rates

Table of Indicators

	Financial Resources Allocated to Education	Activities
Education System and Social Context	1.1 Total Educational Spending in Relation to the GDP 1.2 Total Educational Spending Per Capita 1.3 Total Educational Spending per Student in Relation to Per Capita GDP 1.4 Cost of Educating Graduates	2.1 School Life Expectancy 2.2 Enrollment in Preschool Education
Elementary and Secondary Education	1.5 Total Spending on Elementary and Secondary Education in Relation to the GDP 1.6 School Board Spending in Current and Constant Dollars 1.7 School Board Spending per Student 1.8 Student-Teacher Ratio in School Boards 1.9 Average Salary of Teachers in School Boards	2.3 Enrollment in Secondary IV and V, General Education–Youth Sector 2.4 Enrollment in Secondary Vocational Education–Youth and Adult Sectors 2.5 Enrollment in Secondary General Education–Adult Sector 2.6 Dropping Out of Secondary School 2.7 Repeating a Year in Elementary School and in Secondary General Education–Youth Sector
College	1.10 CEGEP Spending 1.11 Student-Teacher Ratio, Average Teacher Salary and Cost of Teachers per Student in CEGEPs	2.8 College Enrollment-Regular Education 2.9 Going Directly From College to University
University	1.12 Total University Spending in Relation to the GDP 1.13 University Spending per Student 1.14 Average Number of Students per Research Professor, Average Salary and Cost of Professors per Student in Universities 1.15 Student Financial Assistance and Tuition Fees 1.16 Funded and Sponsored Research in Universities	2.10 University Enrollment 2.11 Training of Researchers

Table of Indicators (cont.)

	Results	
	Educational Outcomes	**Evaluation of Learning**
Education System and Social Context		
Elementary and Secondary Education	3.1 Success in Secondary Cycle Two of General Education–Adult Sector 3.2 Success in Secondary Vocational Education	4.1 Secondary School Examination Results, by Several Variables–Youth Sector 4.2 Regional Disparities in Secondary School Examination Results–Youth Sector 4.3 Secondary V French, Language of Instruction, Examination–Youth Sector 4.4 Reading Literacy in 15-Year-Olds 4.5 Mathematical Literacy in 15-Year-Olds 4.6 Scientific Literacy in 15-Year-Olds
College	3.3 Success in Pre-University Programs in Regular College Education 3.4 Success in Technical Programs in Regular College Education 3.5 Duration of Studies in Regular College Education	4.7 Ministerial Examination of College French
University	3.6 Success and Duration of Studies in Bachelor's Programs 3.7 Success and Duration of Studies in Master's Programs 3.8 Success and Duration of Studies in Doctoral Programs	

Table of Indicators (cont.)

	Results	The Labour Market
	Graduation	
Education System and Social Context	5.1 Highest Diploma or Degree Earned	6.1 Employment Trends by Level of Education 6.2 Labour Force Attachment by Level of Education 6.3 Labour Market Integration of Graduates
Elementary and Secondary Education	5.2 Graduation From Secondary School–Youth and Adult Sectors 5.3 Graduation From Secondary School: Regional Disparities–Youth and Adult Sectors 5.4 Graduation From Secondary Vocational Education–Youth and Adult Sectors 5.5 Graduation From Secondary School in OECD Countries	6.4 Labour Market Integration of Secondary Vocational Education Graduates
College	5.6 Graduation From College	6.5 Labour Market Integration of College Graduates
University	5.7 Graduation From University 5.8 University Degrees by Field of Study 5.9 Graduation From University in OECD Countries	6.6 Labour Market Integration of University Graduates

Introduction

This edition of the *Education Indicators* deals with all levels of education, from kindergarten to university. Some indicators cover the education system as a whole, whereas others focus on a specific level. This year, the regular updates have been made as well as some changes to the sections on student achievement on international tests; this edition presents the results of the Programme for International Student Assessment (PISA 2000).

The purpose of publishing indicators is to ensure accountability by providing specific information on the resources allocated to education, the various activities pursued by the education system and the results obtained. The indicators are presented under a series of headings classifying recent and historical data that helps trace these developments over time. The 2002 edition contains 57 sections, the same as last year: 54 of these have been updated, while the remaining 3 are altogether new.

The development of education indicators in Québec is part of a larger movement. The Council of Ministers of Education, Canada (CMEC) has undertaken projects to develop indicators for Canada's provinces; the Organisation for Economic Co-operation and Development (OECD) has done the same for its member countries, and the United Nations Educational, Scientific and Cultural Organization (UNESCO) has also published a series of indicators on education throughout the world. Québec has been an active participant in this worldwide movement, having published the first edition of the *Education Indicators* in 1986.

Examination of the indicators in this publication reveals a number of trends and developments that characterize Québec's education system. Some are explained briefly below. Additional information on these topics and others can be found further on in this booklet.

Financial Resources Allocated to Education

In 2000-2001, Québec's educational spending, including operating expenses, capital expenses of educational institutions and the administrative expenses of the Ministère de l'Éducation, was estimated at $16.2 billion, or 7.4% of the gross domestic product (GDP). The share of the GDP allocated to education in the rest of Canada was estimated at 6.3% and in the United States, at 6.9%.

Total spending amounted to $2 198 per capita and was similar to that of the rest of Canada. In 2000-2001, the breakdown of total spending by level of education was as follows: elementary and secondary education (school boards and subsidized private schools), 53%; college education (CEGEPs and subsidized private colleges), 13%; and university education, 20%. In addition, other spending, mainly for education funded by Human Resources Development Canada or by Emploi Québec, accounted for 14% of the total.

In 2000-2001, operating expenses in Québec school boards were estimated at $7.4 billion, for a per-student average of $6 761. Per-student spending in Québec school boards was 2.5% higher than in the rest of Canada; however, the student-teacher ratio was 14.8 in Québec compared with 16.3 in the rest of Canada, which was offset by a relatively lower salary for teachers in Québec, that is, $49 175 compared with $56 150 in the rest of Canada.

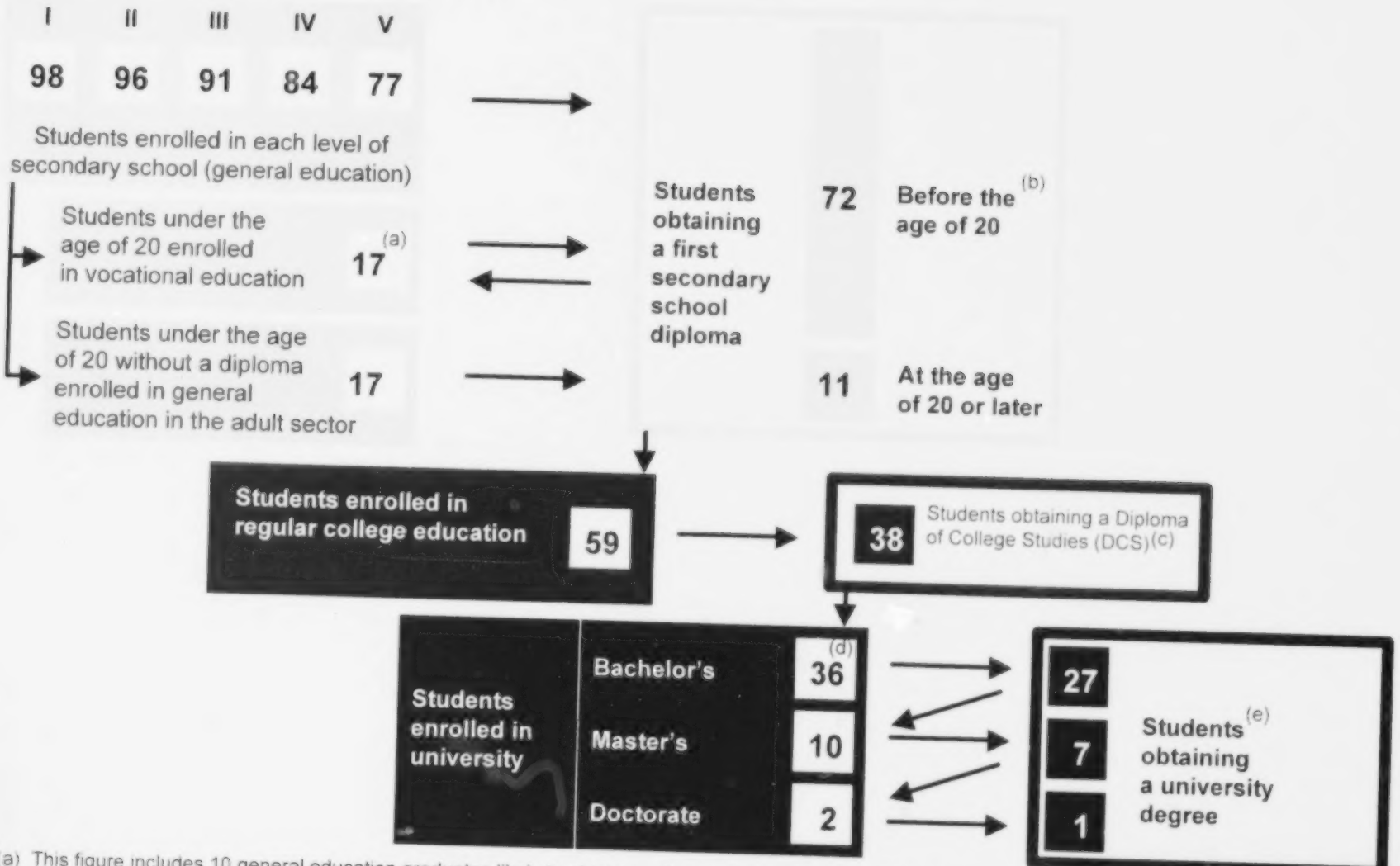
Per-student operating expenses in CEGEPs were estimated at $7 650 in 2000-2001, 54% ($4 154) of which went to teachers. In 1999-2000, university per-student operating and capital expenses, not including funded research, were $14 318, or less than the average for the rest of Canada ($14 547). Overall university spending, however, represented a higher percentage of the GDP in Québec (1.49%) than in the rest of Canada (1.31%) precisely because of Québec's lower collective wealth (defined by the per capita GDP). An amount of $722.1 million was allocated to university research in 1999-2000. The cost of university professors per student was $4 805 in 1999-2000.

In 2000-2001, 128 385 persons benefited from Québec's Student Financial Assistance Program. A total of $330.8 million was granted in the form of loans and $201.8 million, in bursaries. Tuition fees averaged $1 691 in Québec for full-time undergraduate studies compared with $4 009 for the rest of Canada.

Student Retention from Elementary School to University

Student retention in Québec's education system for 2000-2001 is illustrated on the opposite page. The diagram represents the proportions of a cohort of young people who could expect to enroll and to obtain a diploma or degree in each level of education. The diagram shows that, in a generation of 100 persons, 98 could be expected to reach the secondary level and 83 to obtain a first secondary school diploma, 38 to obtain a Diploma of College Studies (DCS), 27 to earn a bachelor's degree, 7 to be awarded a master's degree and 1 to obtain a doctorate. Of the 83 students to obtain a secondary school diploma, 24 would do so in vocational education. However, the educational playing field was far from level for the sexes in 2000-2001: many more male students than female students (24% compared with

Student Retention of 100 Quebeckers in the Education System, Based on Findings for 2000-2001



(a) This figure includes 10 general education graduates likely to obtain another diploma in vocational education.
(b) All diplomas earned in the youth sector are included, regardless of the age of the graduates.
(c) The most recent year for which data is available is 1999-2000.
(d) Students who enroll in university are not limited to those who hold a DCS.
(e) The most recent year for which data is available is 2000.

11%) could be expected to leave their studies before earning a diploma or degree. At the other extreme, in 2000, 32% of women would obtain at least a bachelor's degree, compared with only 22% of men.

Objectives for the educational success of a greater number of Quebeckers have been set for the year 2010: to have 85% of the students in a generation earn a secondary school diploma before the age of 20; 60%, a DCS; and 30%, a bachelor's degree. Women have already attained the objective set for earning a bachelor's degree.

Children who began elementary school in 2000-2001 can expect to be in school for 15.4 years (assuming that the success rates and retention rates prevailing in the education system in 2000-2001 do not change). Secondary school graduates will have been in school for 11.2 years, at an estimated cost of $87 120 in 2000-2001; those obtaining a bachelor's degree will have studied for 17.0 years, at an estimated total cost of $171 712.

Staying in School and Obtaining a Diploma

The dropout issue is a major concern among educators. Numerous approaches have shed light on this phenomenon. Educational success, defined here as obtaining a diploma, is measured differently for each level and sector of education. In this regard, the proportion of 19-year-olds who left school without a secondary school diploma was 19% at the beginning of 2000-2001.

The proportion of students in other education sectors who obtained diplomas or degrees and the proportion who left school either temporarily or permanently were determined by observing the number of students who leave school each year. Thus, of the students in Secondary Cycle Two in the adult sector who quit their studies before the age of 20, 53% did so with a diploma, while 47% left school for at least two years. In secondary vocational education, of 100 students of all ages who were enrolled in programs leading to a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) and who left secondary school, 65 did so with a diploma. At the college level, approximately 70% of students in pre-university programs leading to a DCS obtained a diploma; in technical education, 55% of students obtained a DCS. At the university level, 66% of students leaving bachelor's programs did so with a degree. Of the students enrolled in master's and doctorate programs, 67% and 53%, respectively, earned their degree.

Evaluation of Learning

In the subjects for which uniform examinations were administered for the certification of studies by the Ministère de l'Éducation in June 2001, students in Secondary IV and V obtained an average mark of 73.5% and had a success rate of 85.9%. The male students' average was 72.7% and the female students', 74.3%. Students obtained an average final mark of 72.6% on the examination in Secondary V French, language of instruction; and 91.2% passed. At the college level, 83.7% passed the ministerial examination of college French, language of instruction.

In the first survey of the *Programme for International Student Assessment* (PISA 2000) conducted in 32 countries, 15-year-old students in Québec ranked among the highest in each of the three tests that measured reading, mathematical and scientific literacy. In Canada, students from Alberta and Québec had the best results.

What Becomes of Graduates?

When they finish school, graduates from secondary school, college and university have to make choices. Some decide to continue their education, while others set their sights on the labour market. In 1999-2000, at the end of their college studies, 78.6% of pre-university program graduates under the age of 25 went on to university the following year, compared with 21.5% of graduates from technical programs.

The unemployment rate in March 2001 was 12.3% for students who had graduated in 1999-2000 with a DVS, 5.4% for students who had graduated from a college technical program and 10.5% for pre-university program graduates. The unemployment rate in January 2001 was 4.0% for graduates (class of 1999) with a bachelor's degree, 3.7% for master's degree graduates and 6.2% for those with a doctorate.

Since 1990, the profile of the work force in Québec has changed significantly. In 2001, of those who were employed, 668 000 (or 42%) more than in 1990 had a DVS, a DCS or a university degree. During the same period, the number of employed people who had not gone beyond the SSD in general education dropped by 314 000 (or 21%).

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Readers seeking a more in-depth analysis or an up-to-date picture of the situation should consult the individual sections in the pages that follow. The Ministère de l'Éducation and the Conseil supérieur de l'éducation also produce and publish specialized studies on these topics. Finally, general information on the education system is available in the following publications:

- *Basic Statistics on Education*
- *Annual report of the Ministère de l'Éducation*
- *Annual Report on the State and Needs of Education, published by the Conseil supérieur de l'éducation*
- *Strategic Plan of the Ministère de l'Éducation*

This information is also available at the Web site of the Ministère de l'Éducation at <http://www.meq.gouv.qc.ca>.

Québec's Education System: An Overview

Québec's education system offers a wide range of educational programs and services from kindergarten to university.

Elementary and Secondary Education

Elementary school normally lasts six years; secondary school, five. Children are admitted to the first year of elementary school in the school year in which they will have turned 6 years of age by October 1. Kindergarten is not compulsory, but, as of the fall of 1997, almost all 5-year-olds attend full-time. School attendance is compulsory until the year in which students turn 16 years of age, which normally corresponds to Secondary IV.

Elementary education is offered in French, English or a Native language, and secondary education, in French or English. Students deemed eligible to study in English are chiefly those whose father or mother attended English elementary school in Canada. Public elementary and secondary education is provided by school boards. The school boards are managed by school commissioners, who are elected by residents in the territory under the school board's jurisdiction. The school boards hire the staff they need to provide educational services. In 2000-2001, the Québec government funded 78% of school board operating expenses, while local taxes accounted for 14% of school board revenues, and other sources provided the remaining 9%.

In July 1998, the number of school boards was reduced to 72, and they were organized along linguistic lines, except for three with special status. There are 60 French school boards and 9 English school boards, with enrollments ranging from 850 to 75 500, for a median size of approximately 10 000 students. The three special-status school boards serve primarily Native students in the Côte-Nord and Nord-du-Québec regions; they are the Cree School Board, the Kativik School Board and the Commission scolaire du Littoral.

Elementary and secondary education is also provided by private institutions, some of which are subsidized by the Ministère de l'Éducation. The private school system accounts for 4.8% of elementary students and 16.4% of secondary students in the youth sector. About half of the operating expenses of subsidized private institutions is funded by the Québec government. Elementary and secondary education is also offered by some public institutions that are not part

of the school board system but that fall under Québec or federal government jurisdiction; these institutions account for 0.3% of students.

Secondary school diplomas are awarded by the Minister of Education to students who fulfill the certification requirements set by the Minister. A Secondary School Diploma (SSD) generally leads to admission to college. A Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) generally leads to the labour market, but also allows admission to college. The harmonization of educational services offered in the youth sector and the adult sector is a feature of Québec's education system. Adult education leads to secondary school diplomas that are the same as or equivalent to those offered in the youth sector.

College Education

Students may enroll in college programs leading to a Diploma of College Studies (DCS) or in short technical programs leading to an Attestation of College Studies (ACS). College education theoretically consists of a two-year program for students enrolled in pre-university education or a three-year program for those in technical education; technical programs aim primarily at entry into the labour market, but also allow admission to certain disciplines in university.

Students may pursue their college studies in the language of instruction of their choice. Public college education is provided by CEGEPs (a French acronym that stands for general and technical college). CEGEPs are administered by boards composed of representatives from different interest groups, including members of the public, parents, students, staff members and college administrators. In 2000-2001, the Québec government funded 85% of CEGEP operating expenses. Private educational institutions served 11% of college students, and 57% of their expenses were funded by the government. College education is also available at a few institutions associated with ministries other than the Ministère de l'Éducation and by the Macdonald Campus of McGill University.

A DCS is awarded to a student by the Minister of Education following the recommendation of the institution attended. For shorter programs, other types of certification are awarded: the Certificat d'études collégiales (CEC–certificate of college studies), the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies) and the ACS. These are issued directly by the college. CECs and DPECs are being phased out, as students stopped being admitted to programs leading to these types of certification in 1994.

University Education

Québec has English and French universities; students are free to attend the university of their choice. University education is divided into three levels of studies. The first leads to a bachelor's degree (generally after three years or, less frequently, four years in certain programs), the second to a master's degree, and the third to a doctoral degree. Universities also award certificates, diplomas and other forms of attestation to certify the successful completion of short programs. In 2000-2001, 55% of university expenses were subsidized by the Québec government.

Ministère de l'Éducation

The Ministère de l'Éducation fulfills different functions for the various levels of education. For elementary, secondary and college education, the Ministère develops programs and determines objectives and often content. In terms of labour relations, it negotiates and signs provincial agreements. In terms of financing, it establishes a standard framework and provides the largest share of resources. At the university level, it promotes the advancement of teaching and research by providing universities with the resources required for operation and development while respecting their autonomy and fostering collaboration among the various partners.

Reform of the Education System

In the fall of 1996, following the Estates General on Education, the Ministère de l'Éducation announced the main guidelines for the reform of the education system. Seven major lines of action were defined:

- Provide services for young children, in particular, by implementing full-time kindergarten.
- Teach the essential subjects throughout elementary and secondary school.
- Give more autonomy to schools.
- Support Montréal schools, given the particular challenges they are facing.
- Intensify the reform of vocational and technical education.
- Consolidate and rationalize postsecondary education.
- Provide better access to continuing education.

Concrete changes have already taken place: in particular, kindergarten was made full-time for 5-year-olds in the fall of 1997. At the secondary level, the diversification of vocational education options has also been undertaken and will provide access to programs leading to a DVS after Secondary III and the implementation of programs leading to an Attestation of Vocational Education (AVE) that will prepare students who have completed Secondary II to practise a semiskilled occupation.

In addition, as part of the Ministère de l'Éducation's 2000-2003 strategic plan, along with a reinvestment in education, starting in 2000 educational institutions at the elementary, secondary and college level were required to develop success plans and universities, performance contracts. These plans must include targets for educational success in terms of measurable results and the concrete means to achieve these results.

1.1 Total Educational Spending in Relation to the GDP

In 2000-2001, Québec allocated 7.4% of its gross domestic product (GDP) to education,[1] compared with the Atlantic Provinces at 8.0%, Ontario at 5.9%, and Western Canada at 6.4%. The United States spent 6.9% of its GDP on education. When this indicator is considered, it is evident that Québec educational spending remains higher than the average for the other provinces or the United States.

In 2000-2001, the share of the GDP allocated to education was higher in Québec than in the rest of Canada as a whole, and in the United States. However, compared with the situation that prevailed in the early 1980s, the gap has narrowed.

Between 1981 and 1989, the share of the GDP earmarked for education in Québec dropped considerably (from 9.3% to 7.3%), while it increased slightly in the rest of Canada (from 6.5% to 6.7%), and showed a slightly higher rise in the United States (from 6.3% to 7.0%). The gap of 2.8 percentage points between Québec's educational spending and that of the rest of Canada in 1981-1982 was therefore reduced to 0.6 percentage points in 1989-1990; the gap between Québec and the United States decreased to 0.3 percentage points. The fact that Québec has moved closer to the North American average can largely be explained by the more restrictive measures adopted by the Québec government to control spending during that period.

Between 1989 and 1993, a period of economic recession, the share of the GDP allocated to education rose in all regions of Canada and in the United States, with the result that, in 1993-1994, Québec spent 8.7% of its GDP on education, the rest of Canada spent 7.7% and the United States spent 7.2%.

Between 1993 and 2000, the share of the GDP spent on education decreased in all regions of Canada, because of budget cuts. In Québec it dropped from 8.7% to 7.4%, and in the rest of Canada, from 7.7% to 6.3%. In the United States, the decline was far less significant and was estimated at 6.9% in 2000-2001.

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1. In 2000-2001, Québec spent $16.2 billion of its $218.6-billion GDP on education. The concept of total spending used in this section is defined at the bottom of Table 1.1.

If the share of the GDP allocated to education in Québec is compared with that allocated by the member countries of the Organisation for Economic Co-operation and Development (OECD) in 1998, Québec ranks among the countries with the highest educational spending. This is primarily because teaching costs are relatively higher in Québec than the average for OECD countries. The fact that postsecondary education is more developed in Québec than in the OECD countries also helps explain Québec's higher level of educational spending.[2]

To explain why Québec invested a greater share of its GDP in education than the rest of Canada in 2000-2001, the following four factors can be considered: per-student spending; collective wealth (defined by the per capita GDP); school attendance rate (the ratio of the total school enrollment to the population between 5 and 24 years old); and the demographic factor (the ratio of the 5-24 age group to the total population). Lower per-student spending in Québec than the average for the rest of Canada has helped narrow the gap between the share of the GDP allocated to education in Québec and in the rest of Canada. The slightly higher school attendance rate in Québec helps explain why Québec invests a greater share of its GDP in education than the rest of Canada, but it is partially offset by the demographic factor (older population in Québec). The most important factor underlying the gap between Québec and the rest of Canada is Québec's lower per capita GDP. It is therefore Québec's lesser collective wealth that primarily explains why it invests relatively more in education.

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2. The most recent year for which data is available on the share of the GDP allocated to education for the OECD countries is 1998. For more information regarding comparisons with member countries of the OECD, refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *Educational Spending Relative to the GDP in 1997: A Comparison of Québec and the OECD Countries*, No. 20, November 2000. This document is available on the Internet at <http://www.meq.gouv.qc.ca>.

Table 1.1

Total educational spending[1] in relation to the GDP: Québec, other regions of Canada, and the United States (%)

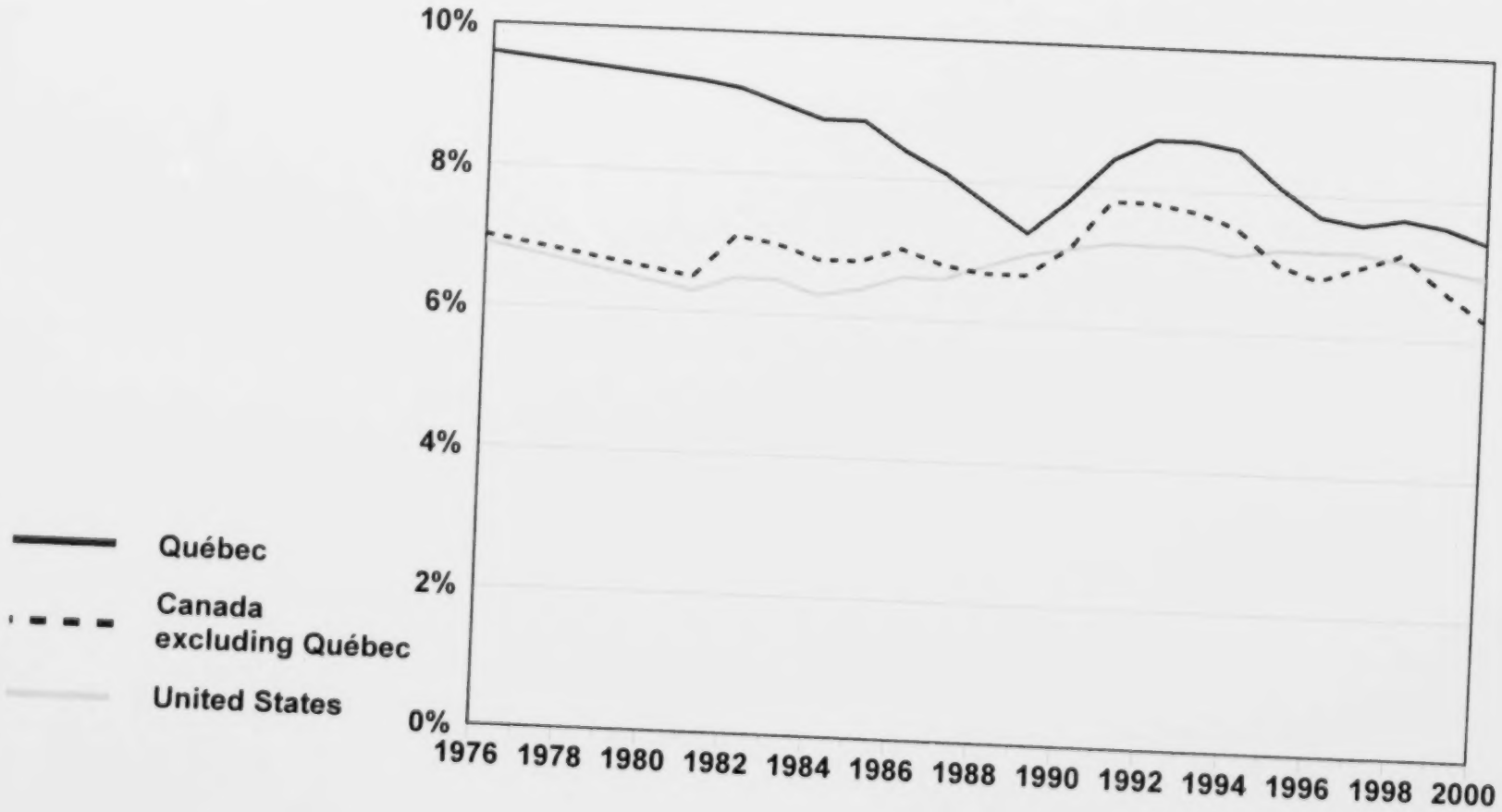
	1976-1977	1981-1982	1989-1990	1993-1994	1999-2000[e]	2000-2001[e]
Québec	**9.6**	**9.3**	**7.3**	**8.7**	**7.6**	**7.4**
Canada, excluding Québec	**7.0**	**6.5**	**6.7**	**7.7**	**6.7**	**6.3**
Atlantic Provinces	10.9	10.5	9.3	9.7	8.7	8.0
Ontario	6.8	6.5	6.2	7.5	6.3	5.9
Western Canada	6.3	5.7	6.6	7.2	6.7	6.4
Canada	**7.6**	**7.1**	**6.8**	**7.9**	**6.9**	**6.5**
United States	**6.9**	**6.3**	**7.0**	**7.2**	**7.0**	**6.9**

e: Estimates

1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada).

Graph 1.1

Total educational spending in relation to the GDP: Québec, Canada excluding Québec, and the United States (%)



1.2 Total Educational Spending Per Capita

In 2000-2001, total educational spending per capita[1] was estimated at $2 198, higher than in the Atlantic Provinces ($2 042) and Ontario ($2 155), but lower than in Western Canada ($2 238). Graph 1.2 shows the relative change in total educational spending per capita for these regions between 1976 and 2000.

In 2000-2001, total educational spending per capita in Québec was similar to the average for the rest of Canada.

Table 1.2a shows the data on total spending per capita by level of education in 2000-2001.[2] These figures indicate the distribution of educational spending among the levels of education for the regions in question. The differences in per capita spending observed between regions for a given level of education are explained in part by the organizational differences between the education systems. Thus, the fact that total per capita spending at the elementary and secondary levels is lower in Québec than in the rest of Canada (with the exception of the Atlantic Provinces) is explained in part by the shorter duration of studies in Québec (11 years in Québec, and normally 12 years in the rest of Canada). Conversely, total spending per capita at the college level is higher in Québec than in the rest of Canada, because of the unique characteristics of our college network (including the mandatory two years of college before entering university).[3]

Table 1.2b shows data on the direct sources of funds for financing total educational spending. These figures indicate that in Québec, provincial subsidies make up a large part of the financing for education (69.7%). This percentage is higher than in the Atlantic Provinces (66.6%), Ontario (54.9%) and Western Canada (53.1%).

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1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada).
2. The category "Other" in Table 1.2a includes education financed by Human Resources Development Canada, federal spending on language courses, vocational education offered in federal and provincial correctional institutions, various federal and provincial training programs (for example, those offered by Emploi Québec) and expenses of private trade schools, art schools, music schools, etc. (as defined by Statistics Canada).
3. Regarding the organizational differences at the college level, see Section 1.3.

In the other provinces, financing sources other than the government play a larger role for one or more of the following reasons: local funding is more significant, tuition fees are higher, or the educational institutions in the other regions are in a better position to obtain other sources of funding.[4]

In 2001-2002, university students in Québec paid tuition fees that were 42% ($1 691) of the amount charged in the rest of Canada ($4 009).[5] Furthermore, unlike in Québec, students in the other provinces enrolled at a level equivalent to college may be required to pay tuition fees. Thus, according to a survey of technical colleges in Ontario, conducted by telephone in the fall of 1999, the average annual cost of education (tuition fees and other expenses) applicable to Canadian citizens and permanent residents was $2 221. In Québec, the only fees required of students enrolled in college-level technical education are for school supplies, photocopies and registration–generally around $100 to $300 per year.

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4. It must be noted, however, that there are comparatively more private schools in Québec than in the rest of Canada, and that tuition fees paid to the schools are included in the other sources of funding.
5. See section 1.15.

Table 1.2a

Total educational spending per capita: Québec and other regions of Canada, 2000-2001[e] ($)

	Elementary and secondary	College[1]	University	Other[2]	Total
Québec	**1 166**	**283**	**441**	**308**	**2 198**
Canada, excluding Québec	**1 321**	**139**	**460**	**273**	**2 193**
Atlantic Provinces	1 086	91	523	342	2 042
Ontario	1 323	150	477	205	2 155
Western Canada	1 355	130	427	326	2 238
Canada	**1 284**	**173**	**455**	**282**	**2 194**

Table 1.2b

Direct sources of funds for total educational spending: Québec and other regions of Canada, 2000-2001[e] (%)

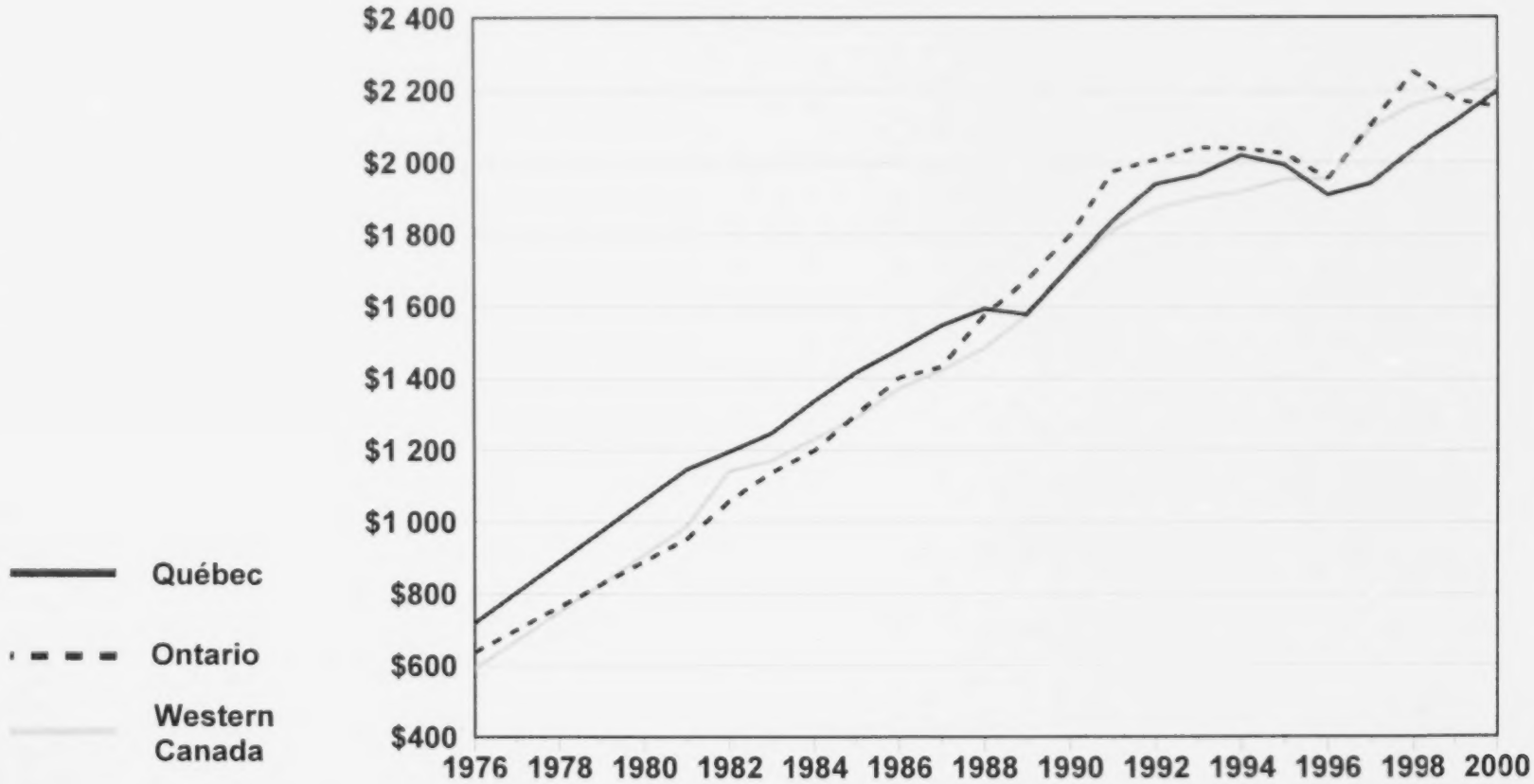
	Provincial government	Federal government	Local government	Other sources	Total
Québec	**69.7**	**7.8**	**7.7**	**14.8**	**100.0**
Canada, excluding Québec	**55.4**	**8.7**	**17.2**	**18.7**	**100.0**
Atlantic Provinces	66.6	13.4	3.1	16.9	100.0
Ontario	54.9	6.5	19.0	19.6	100.0
Western Canada	53.1	9.6	18.8	18.5	100.0
Canada	**58.8**	**8.5**	**14.9**	**17.8**	**100.0**

e: Estimates

1. Regarding the organizational differences at the college level, see Section 1.3.
2. See Note 2 at the bottom of the text.

Graph 1.2

Total educational spending per capita: Québec, Ontario and Western Canada (in current dollars)



1.3 Total Educational Spending per Student in Relation to Per Capita GDP

Total per-student spending is an indicator of financial investment in education, and the per capita gross domestic product (GDP) is an indicator of collective wealth. Relating the two provides an indicator of the relative financial investment in education, that is, per-student spending expressed as a percentage of the per capita GDP. To calculate this indicator, the concept of spending per student is more inclusive than that used in other sections of this chapter.[1]

When collective wealth is factored in, Québec's collective investment in education remains higher than the average for the rest of Canada.

In 2000-2001, total per-student spending at the elementary and secondary levels ($7 141) was higher than in the Atlantic Provinces ($6 570), but lower than in Ontario ($7 742) and Western Canada ($7 614).

Total per-student spending at the college level was higher in Québec ($12 473) than in the Atlantic Provinces ($10 510) and in Ontario ($12 092), but almost the same as in Western Canada ($12 455). The comparisons of spending at the college level are provided as a reference only, as this level cannot truly be compared between regions because of significant organizational differences. For example, in Québec, a Diploma of College Studies in pre-university education is the usual requirement for admission to university, whereas in the other provinces, a secondary school diploma is generally sufficient. In Ontario, college-level programs are offered at colleges of applied arts and technology. In some cases, the programs offered can be compared, to a certain extent, with vocational education programs offered by Québec school boards. More often, they are comparable to the technical education programs offered by Québec CEGEPs. Furthermore, in some provinces in Western Canada (especially Alberta and British

1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada). Moreover, in the calculation of total per-student spending at the university level, funded research has been excluded. Also, in the calculation of total per-student spending at the college and university levels, a standardized accounting of student enrollment for all the provinces based on the following convention has been used: part-time enrollments are converted into full-time equivalents by dividing them by 3.5, and then added to the full-time enrollments (in previous editions of the *Education Indicators*, only full-time students were considered in the calculation of per-student spending at the college level).

Columbia), students can do their first two years of university studies in a college, and then finish their studies at a university.

Total per-student spending at the university level in 1999-2000[2] was higher in Québec ($16 550) than in the Atlantic Provinces ($16 230), but lower than in Ontario ($16 697) and Western Canada ($17 592). The previously mentioned organizational differences partly explain the gaps observed between the regions. For example, the fact that students in Western Canada can do their first two years of university in a college, then finish their studies in a university, explains in part the higher per-student spending in Western Canada.

Table 1.3b shows total per-student spending in relation to the per capita GDP. Factoring in collective wealth, as measured by the per capita GDP, reveals that Québec's collective financial investment in education remains higher than the average for the rest of Canada. The gaps with Ontario are particularly significant, because of the considerable difference in the provinces' collective wealth.

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2. The calculation of university spending per student is based on data provided by Statistics Canada, and the most recent data available at the time this section was written was for 1999-2000. Because of the delays caused by the new Enhanced Student Information System (ESIS), Statistics Canada was unable to provide us with all the data necessary to calculate per-student spending for 2000-2001.

Table 1.3a

Total per-student educational spending: Québec and the other regions of Canada, 2000-2001[e] (1999-2000[e] for university) ($)

	Elementary and secondary	College	University
Québec	**7 141**	**12 473**	**16 550**
Canada, excluding Québec	**7 616**	**12 321**	**17 142**
Atlantic Provinces	6 570	10 510	16 230
Ontario	7 742	12 092	16 697
Western Canada	7 614	12 455	17 592
Canada	**7 507**	**12 380**	**17 000**

Table 1.3b

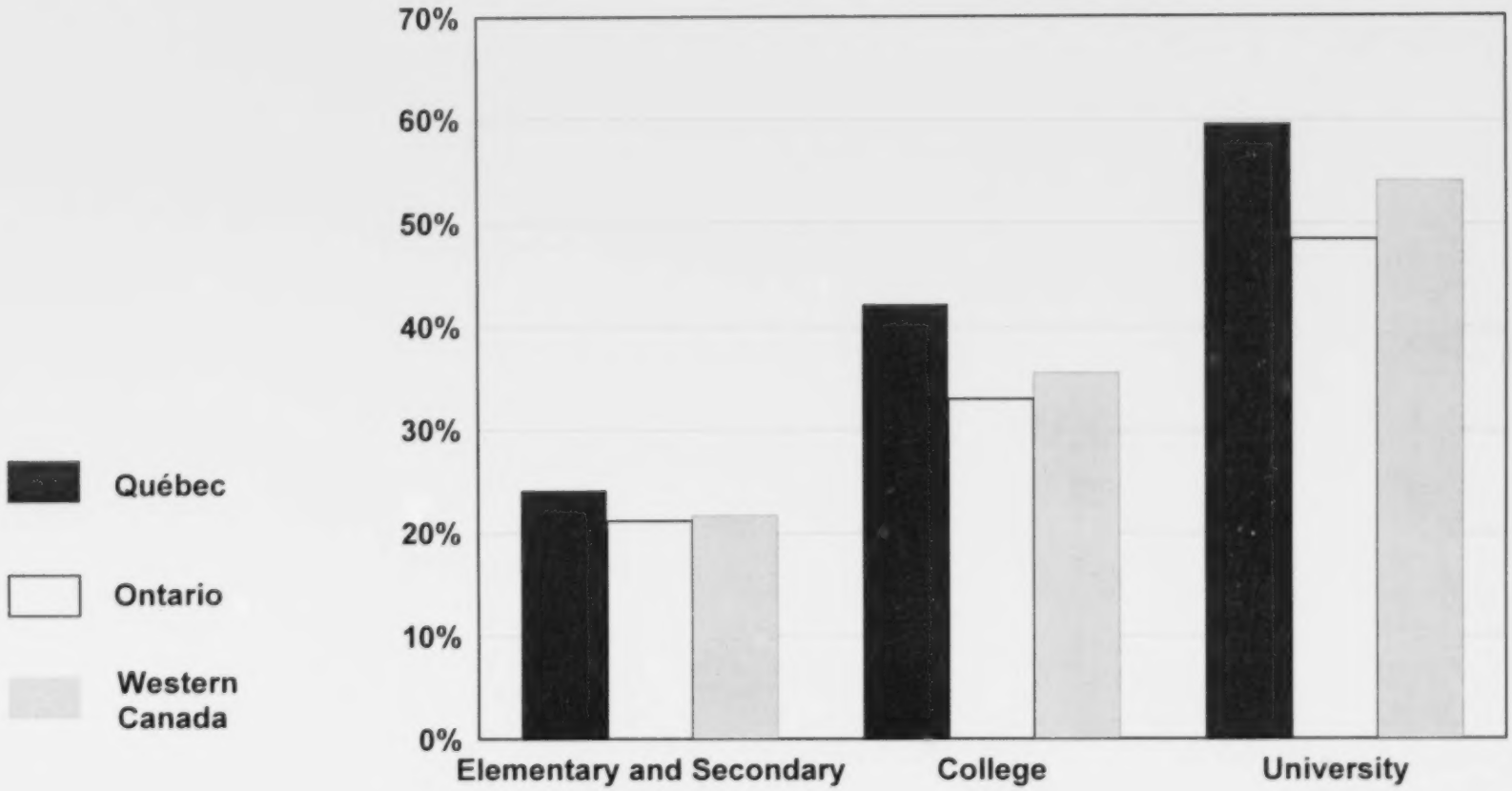
Total per-student educational spending in relation to the per capita GDP: Québec and other regions of Canada, 2000-2001[e] (1999-2000[e] for university) (%)

	Elementary and secondary	College	University
Québec	**24.1**	**42.1**	**59.6**
Canada, excluding Québec	**21.8**	**35.2**	**52.7**
Atlantic Provinces	25.7	41.2	68.9
Ontario	21.1	32.9	48.5
Western Canada	21.7	35.5	54.2
Canada	**22.3**	**36.7**	**54.2**

e: Estimates

Graph 1.3

Total educational spending per student in relation to per capita GDP: Québec, Ontario and Western Canada, 2000-2001 (1999-2000 for university) (%)



1.4 Cost of Educating Graduates

In 2000-2001, the total cost of a secondary school diploma was estimated at $87 120, of a college-level pre-university or technical diploma, at $112 403 and $141 521, respectively, and of a bachelor's degree, at $171 712.

In 2000-2001, the total cost of a bachelor's degree was approximately $172 000 in Québec.

The concept of expenses used here includes operating expenses (excluding funded research), capital expenses of educational institutions, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of financial assistance to students, and other education expenses. For graduates with a Secondary School Diploma (SSD), the cost is based on all the years during which school was attended at the preschool, elementary (regular) and secondary (general) levels. For students graduating with a Diploma of College Studies (DCS) in pre-university education, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general) and college (pre-university) levels. For students graduating with a DCS in technical education, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general) and college (technical) levels. For graduates with a bachelor's degree, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general), college (pre-university) and undergraduate levels.

To calculate the cost of educating a graduate, an estimate of the annual spending per student at each level of education in 2000-2001 was used,[1] as well as the average duration of studies completed by those who obtained the diploma or degree.[2] The expenses incurred by students leaving school without a diploma or degree were not taken into account.

According to Section 1.2, government subsidies make up a large part of the funding for education. However, the government also reaps a large portion of the benefits related to the earning of diplomas or degrees.

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1. Here the university level encompasses undergraduate, graduate and doctoral studies. The cost of studies leading to a bachelor's degree is therefore slightly overestimated.
2. At the university level, one year of studies equals two full-time terms. A part-time term is counted as one third of a full-time term at the university level and one quarter at the college level.

When we compare the income of two individuals with different levels of education, we usually observe that the person with the higher level of education is the one with the higher income (see Graph 1.4). This extra income benefits not only the person with the higher level of education, but society as well. In fact, through taxation, governments recover a large portion of the extra income earned by the individual with the higher level of education. There are, however, a number of other public benefits in addition to the supplementary tax income produced by an increase in the number of graduates. For example, people with a higher level of education are relatively less expensive for society in terms of the use of certain public services.[3]

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3. Refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *The Return on Investment in Education*, No. 8, February 1999. This document examines the profitability of investing in education and is available on the Internet at <http://www.meq.gouv.qc.ca>. In *Education Statistics Bulletin* No. 16, the situation is examined from the point of view of young people acquiring additional education: Demers, Marius. *Education Pays!*, June 2000.

Table 1.4

Cost of educating graduates, 2000-2001

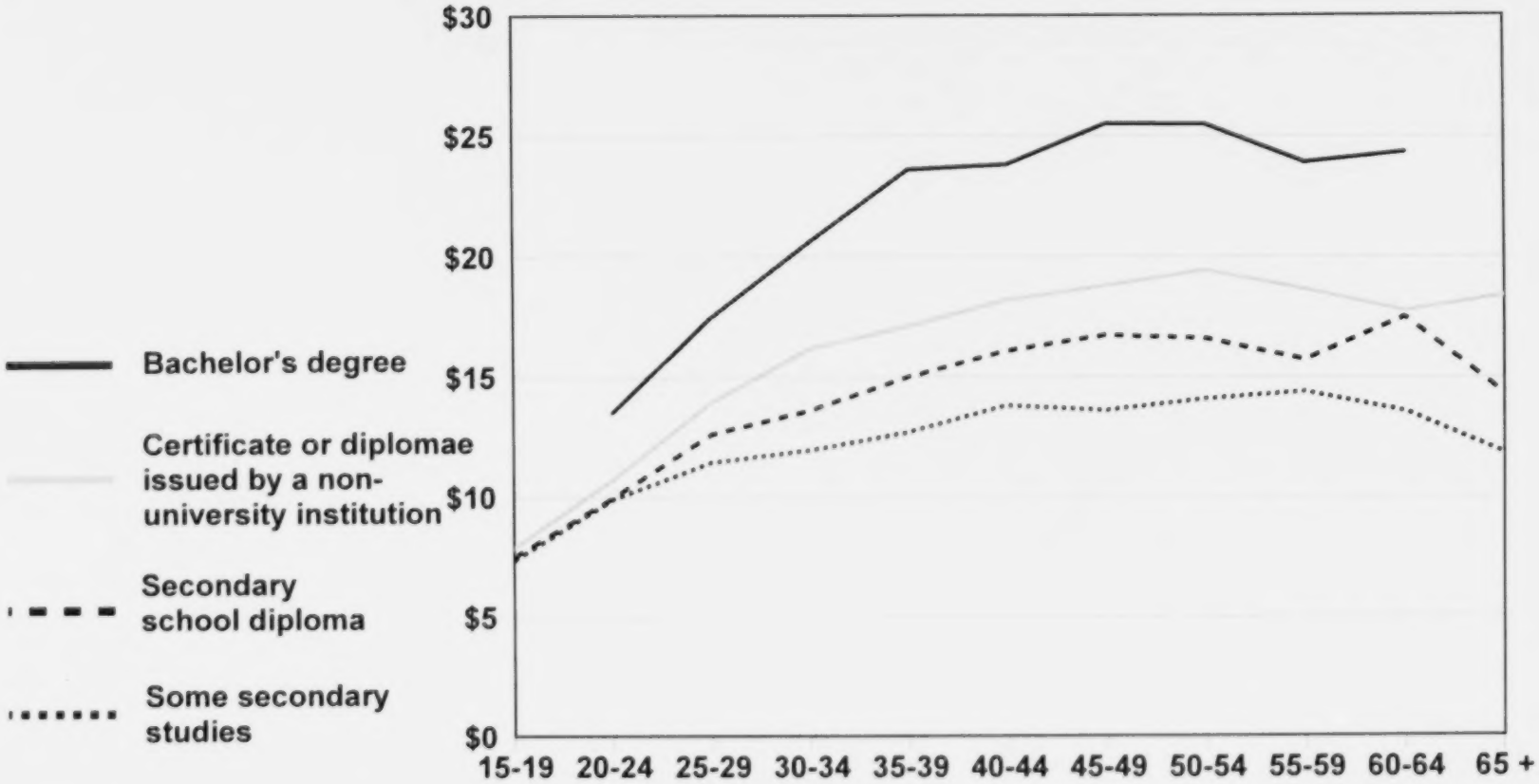
	Average duration of studies[1] (years)	Cost of education ($)[e]
Secondary School Diploma	11.2	87 120
Diploma of College Studies		
Pre-university education	13.6	112 403
Technical education	15.0	141 521
Bachelor's degree	17.0	171 712

e: Estimates

1. Preschool education is included in the cost but not in the average duration of studies indicated in the table, since it is not generally recognized as a year of academic pursuit.

Graph 1.4

Average hourly wage, by age group and highest level of schooling achieved, 2000 ($)



1.5 Total Spending on Elementary and Secondary Education in Relation to the GDP

In 2000-2001, Québec spent roughly the same share of its GDP on elementary and secondary education as the rest of Canada.

In 2000-2001, it was estimated that 3.9% of Québec's gross domestic product (GDP) was spent on elementary and secondary education,[1] compared with the Atlantic Provinces at 4.3%, Ontario at 3.6%, and Western Canada at 3.9%. In the United States, the share of the GDP allocated to elementary and secondary education was estimated at 4.2%. Québec therefore spent roughly the same share of its GDP on elementary and secondary education as the average for the rest of Canada. It should be kept in mind, however, that the duration of elementary and secondary education in Québec is shorter.[2]

Between 1976 and 1981, the share of the GDP allocated to elementary and secondary education dropped from 6.6% to 6.0% in Québec, while in the rest of Canada it went from 4.6% to 4.3%. In the United States, it fell from 4.3% to 3.8%. The gap between Québec and the rest of Canada with respect to educational funding was 1.7 percentage points in 1981-1982, representing a total of $1.4 billion.

Between 1981 and 1989, the share of the GDP allocated to elementary and secondary education dropped from 6.0% to 4.4% in Québec, while it remained stable in the rest of Canada (as a whole) and rose in the United States. The gap of 1.7 percentage points recorded in 1981-1982 between Québec and the rest of Canada narrowed steadily in subsequent years and disappeared almost entirely in 1989-1990. That same year, the share of the GDP spent on elementary and secondary education in Québec was slightly higher than in the United States. The fact that Québec has now reached the North American average can be explained largely by the more restrictive measures adopted by the Québec government to control spending during that period.

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1. In 2000-2001, Québec spent $8.6 billion of its $218.6-billion GDP on public and private elementary and secondary education. The concept of total spending used in this section is defined at the bottom of Table 1.5.
2. The duration of elementary and secondary education is 11 years in Québec and normally 12 years in the other regions considered.

Between 1989 and 1993, a period of economic recession, the share of the GDP allocated to education rose almost everywhere in Canada and the United States, such that in 1993-1994, Québec spent 4.9% of its GDP on elementary and secondary education, that is, the same percentage as the rest of Canada, while the United States spent 4.3%.

Between 1993 and 2000, the share of the GDP spent on elementary and secondary education decreased in Québec and the other provinces, following budget cuts to school boards. In the United States, it remained essentially stable.

When the share of Québec's GDP spent on elementary and secondary education is compared with that of the member countries of the Organisation for Economic Co-operation and Development (OECD) in 1998, Québec ranked near the average for OECD countries considered.[3]

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3. The most recent year for which data is available on the share of the GDP allocated to education for the OECD countries is 1998. For more information regarding comparisons with member countries of the OECD, refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *Educational Spending Relative to the GDP in 1997: A Comparison of Québec and the OECD Countries*, No. 20, November 2000. This document is available on the Internet at <http://www.meq.gouv.qc.ca>.

Table 1.5

Spending on elementary and secondary education[1] in relation to the GDP: Québec, the other regions of Canada, and the United States (%)

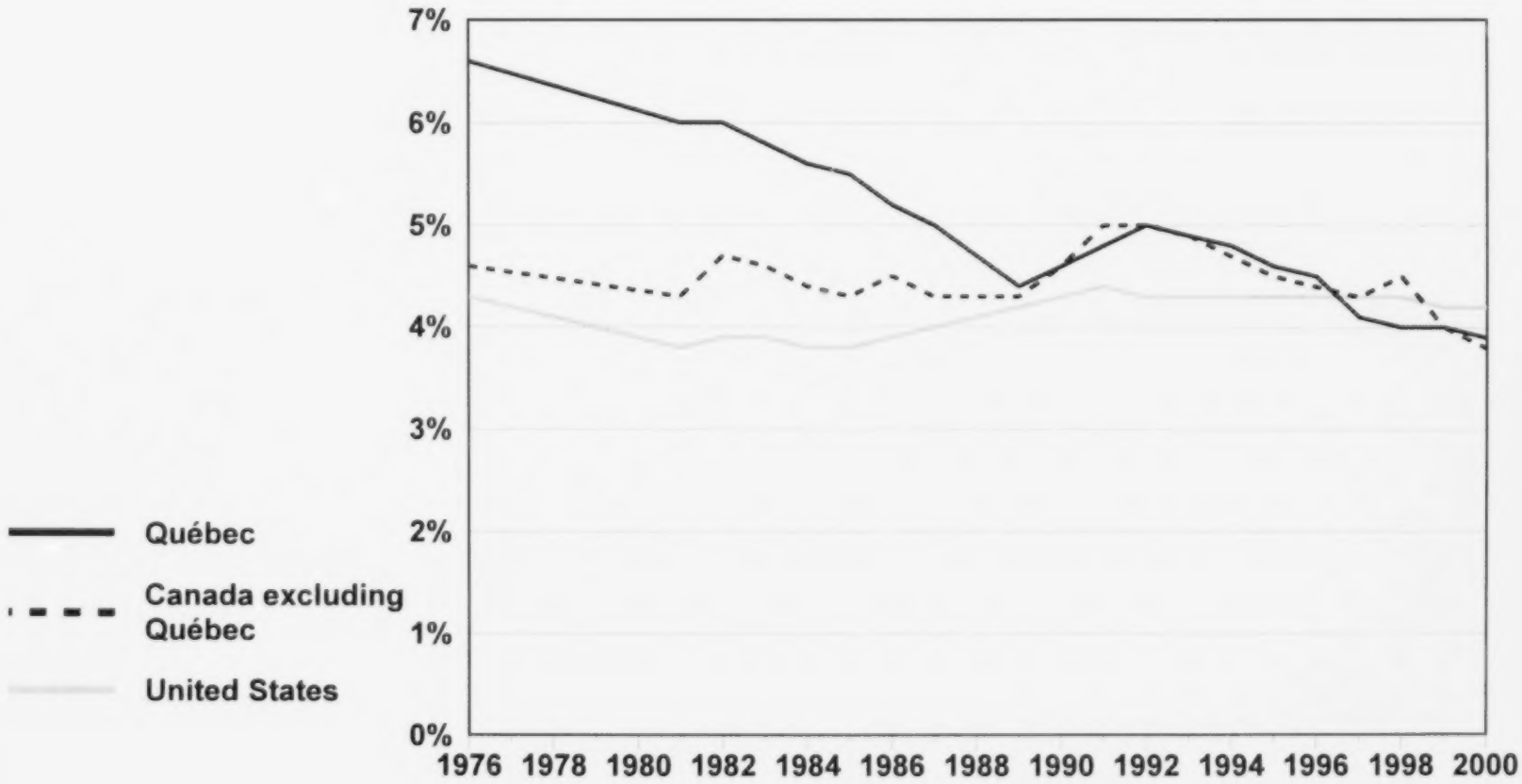
	1976-1977	1981-1982	1989-1990	1993-1994	1999-2000[e]	2000-2001[e]
Québec	**6.6**	**6.0**	**4.4**	**4.9**	**4.0**	**3.9**
Canada, excluding Québec	**4.6**	**4.3**	**4.3**	**4.9**	**4.0**	**3.8**
Atlantic Provinces	7.0	6.9	5.7	5.6	4.6	4.3
Ontario	4.5	4.4	4.3	5.1	3.9	3.6
Western Canada	4.2	3.7	4.1	4.5	4.1	3.9
Canada	**5.1**	**4.7**	**4.3**	**4.9**	**4.0**	**3.8**
United States	**4.3**	**3.8**	**4.2**	**4.3**	**4.2**	**4.2**

e: Estimates

1. These figures include the operating and capital expenses for public and private elementary and secondary education, the Ministère's administrative expenses (the portion attributable to elementary and secondary education), government contributions to employee pension plans and other education expenses (as defined by Statistics Canada).

Graph 1.5

Total spending on elementary and secondary education in relation to the GDP: Québec, Canada excluding Québec, and the United States (%)



1.6 School Board Spending in Current and Constant Dollars

In 2000-2001, school board spending in Québec was estimated at $7.4 billion, student enrollments at approximately 1.1 million, and per-student spending in current dollars at $6 761.[1]

From 1998 to 2000, school board spending per student increased by 14%.

Previous editions of the *Education Indicators* showed that during the 1970s, school board spending rose significantly in Québec in a context of high inflation. Spending can also be expressed in constant dollars, so as to factor in the rise in the price of goods and services used to provide educational services.[2] The figures show that spending in constant dollars remained relatively stable between 1976 and 1981, while enrollments declined by 17%. This resulted in an increase in real funds available per student. The following factors contributed to this rise: a lower student-teacher ratio, an increase in teacher qualifications recognized for salary purposes, and the higher cost of job security for teachers.

In the 1980s, a lower inflation rate, salary restrictions and generally more conservative budget policies considerably curbed the rapid rise in per-student spending.

In the early 1990s, per-student spending in constant dollars increased slightly, then fell again so that, in 1998-1999, it was slightly lower than in 1990-1991. The decrease observed between 1994 and 1998 can be explained by budget cutbacks and the application of cost-cutting measures in Québec school boards, as well as by the introduction of full-time kindergarten in 1997-1998, which caused a drop in per-student spending.[3]

---

1. See Note 1 at the bottom of Table 1.6. The concept of spending differs slightly from that used in previous editions (the direct contribution of the Québec government to school board employee pension plans is now included here). The concept is the same as that used in Section 1.7.
2. The school boards' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services. Changes in spending in constant dollars reflect changes in the real funds available to school boards.
3. The introduction of full-time kindergarten resulted in an increase in the "relative weight" of a relatively inexpensive sector of enrollments.

Between 1998 and 2000, there was a 14% increase in per-student spending in current dollars and a 7% increase in constant dollars. The considerable increase in per-student spending in current dollars is primarily the result of the agreement concluded in April 2000 between the Québec government and the unions regarding a new salary structure for teachers (as part of pay equity),[4] of the signing of a new collective agreement and of support measures for school boards (additional funding for child-care services,[5] implementation of the education reform, special education policy, professional development of teachers and hiring of technicians for the development of information technologies, support for economically disadvantaged areas, funding to reduce the fees charged to parents, etc.).

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4. Salary scales were adjusted retroactively to 1995-1996 but the school boards' financial statements do not take them into account until 1999-2000; this explains the large increase observed in 1999-2000 (significant adjustment of salary scales compared with the previous year). It is important to note, however, that the amounts paid retroactively in 1999-2000 for past years are not considered for the purpose of calculating per-student spending in 1999-2000 and that per-student spending for past years has not been adjusted.
5. Following a policy limiting the financial contribution of parents to $5 a day for each child enrolled on a regular basis in child-care services.

Table 1.6

School board spending[1]

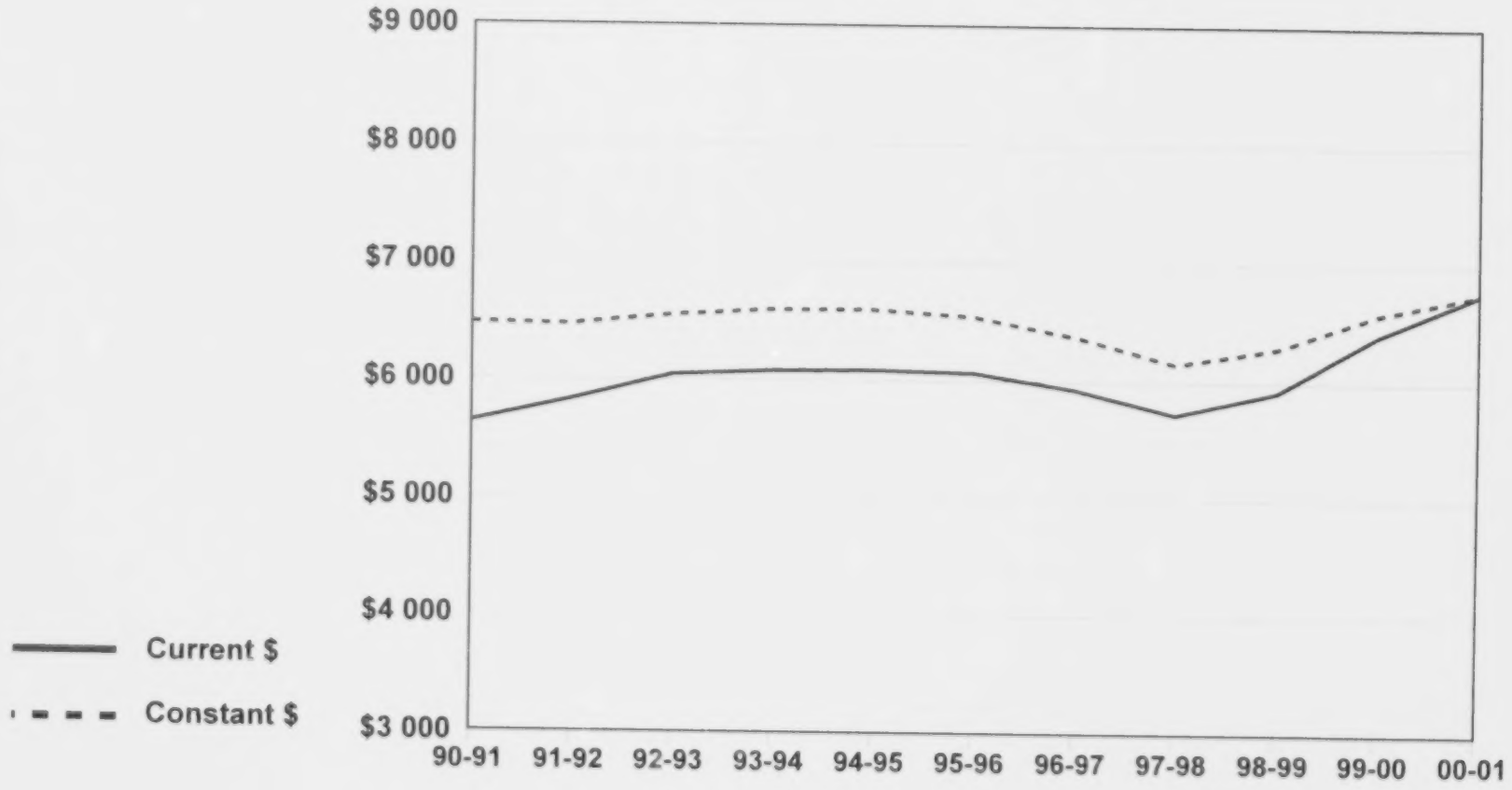
	1990-1991	1992-1993	1994-1995	1996-1997	1999-2000	2000-2001[e]
Total spending (in millions of dollars)						
In current dollars	6 001.8	6 573.3	6 583.7	6 449.2	7 053.5	7 390.9
In constant 2000-2001 dollars[2]	6 893.9	7 124.7	7 137.6	6 939.1	7 250.7	7 390.9
Spending per student ($)						
In current dollars	5 634	6 037	6 083	5 929	6 403	6 761
In constant 2000-2001 dollars[2]	6 471	6 543	6 595	6 380	6 582	6 761

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities), capital expenses financed directly from current revenues, and transfer expenses. The direct contribution of the Québec government to school board employee pension plans is included in the operating expenses.
2. See Note 2 at the bottom of the text.

Graph 1.6

School board spending in current dollars and in constant 2000-2001 dollars



1.7 School Board Spending per Student

In 2000-2001, spending per student[1] by Québec school boards was estimated at $6 761, compared with the Atlantic Provinces at $5 723, Ontario at $6 637, and Western Canada at $6 608. In the United States, per-student spending was estimated at $8 686.[2]

In 2000-2001, school board spending per student in Québec was slightly higher than the Canadian average, but lower than in the United States.

Previous editions of the *Education Indicators* showed that spending per student rose more rapidly in Québec than in the rest of Canada and the United States in the 1970s. The sharper decline in Québec enrollments accounted for a large increase in per-student spending, owing to constraints which prevented expenses from being slashed in proportion to the drop in enrollments. More costly salary policies, a greater decrease in the student-teacher ratio and the higher cost of job-security policies also contributed to the more rapid rise of per-student spending in Québec during this period.

In the 1980s, a reversal occurred: per-student spending rose more slowly in Québec than in the rest of Canada and the United States. In Québec, the slower growth in spending was a result of salary-restriction measures applied to school board employees. During that time, the working conditions of school board employees were improving significantly in Ontario and in the United States, with the result that per-student costs have been higher in these areas than in Québec since the mid-1980s.

---

1. The basic data used in this section comes from an annual survey conducted by the British Columbia Ministry of Education among all Canadian provinces. Some data not provided by the survey has been estimated on the basis of Statistics Canada data.
2. For the purposes of this comparison, per-student spending in the United States is expressed in Canadian dollars. American dollars are converted to Canadian dollars using the purchasing power parity rates (PPP) set by the OECD. "Purchasing Power Parities (PPPs) are the rates of currency conversion that equalize the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. Thus, PPPs are the rates of currency conversion which eliminate differences in price levels between countries." (OECD, *National Accounts*).

Between 1990 and 2000, per-student spending varied in Canada and, in 2000-2001, per-student spending in Québec was slightly higher than the Canadian average. It should be noted that per-student spending in Québec increased by 14% between 1998 and 2000. The considerable increase in per-student spending in current dollars is primarily the result of the agreement concluded in April 2000 between the Québec government and the unions regarding a new salary structure for teachers (as part of pay equity), the signing of a new collective agreement and support measures for school boards.[3]

In the United States, per-student spending was on an upward trend in 2000-2001 and was 28% higher than in Québec. A comparison of Québec with the United States as a whole for 2000-2001 reveals that per-student spending was higher in 47 U.S. states,[4] and lower in 4 states. Compared with Ontario, per-student spending was higher in 48 states.[5]

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3. See Section 1.6.
4. Including the District of Columbia.
5. Ibid.

Table 1.7

School board spending per student:[1] Québec, the other regions of Canada, and the United States (in current dollars[2])

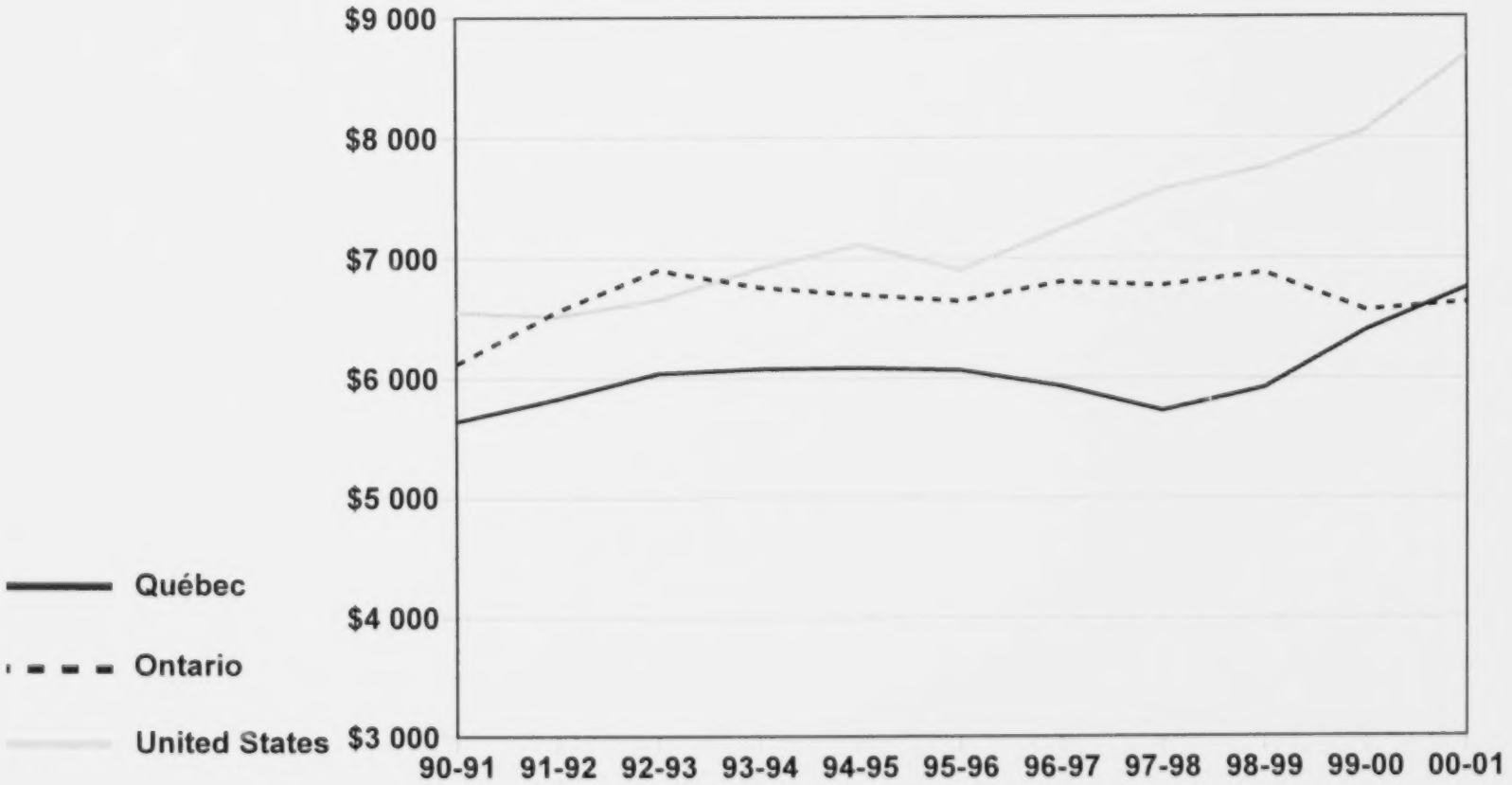
	1990-1991	1992-1993	1994-1995	1996-1997	1999-2000	2000-2001[e]
Québec	**5 634**	**6 037**	**6 083**	**5 929**	**6 403**	**6 761**
Canada, excluding Québec	**5 607**	**6 172**	**6 172**	**6 322**	**6 439**	**6 552**
Atlantic Provinces	4 538	4 789	4 959	5 056	5 693	5 723
Ontario	6 114	6 898	6 696	6 804	6 569	6 637
Western Canada	5 235	5 592	5 782	6 009	6 424	6 608
Canada	**5 613**	**6 142**	**6 152**	**6 236**	**6 430**	**6 588**
United States	**6 551**	**6 656**	**7 114**	**7 246**	**8 057**	**8 686**

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities) and capital expenses financed directly from current revenues. The direct contribution of the Québec government to school board employee pension plans is included in the operating expenses.
2. See Note 2 at the bottom of the text.

Graph 1.7

School board spending per student: Québec, Ontario and the United States (in current dollars)



1.8 Student-Teacher Ratio in School Boards

In 2000-2001, the average number of students per educator was lower in Québec than in the other provinces, but higher than in most U.S. states.

In 2000-2001, the average number of students per teacher in school boards was estimated at 16.2 in Québec and 14.9 in the United States. The student-teacher ratio is calculated by dividing the number of students by the number of teachers in the school boards. Data on enrollments and teaching personnel is expressed in full-time equivalents. The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be considered as a composite indicator that is the result of three variables: the average number of students per class, the average teaching time of teachers and the average instruction time for students.

In 2000-2001, the student-teacher ratio in Québec school boards was therefore 1.3 students higher than that for the United States. A comparison of Québec with the United States as a whole for 2000-2001 reveals that the student-teacher ratio was higher in 9 states and lower in 42 states[1] (according to the most recent figures available for each state).

The data available for the other provinces uses a more encompassing concept of personnel. In addition to teachers, educators also include school administrators and nonteaching professionals who work with students (e.g. education consultants, guidance counsellors and pastoral animators).[2] Table 1.8b contains data on the student-educator ratio. In 2000-2001, this ratio was lower in Québec (14.8) than in the Atlantic Provinces (16.0), Ontario (15.9) and Western Canada (16.8). The lower number of students per educator in Québec than in Ontario is largely due to the average teaching time of teachers, which is lower in Québec. For example, the average teaching time of teachers in Québec was 615 hours per year at the secondary level, while that of their counterparts in Ontario was 740 hours. Since the average class size was approximately the same in both provinces and the average instruction time for students was 900 hours in Québec and 950 hours in Ontario, the lower average teaching time of teachers in Québec resulted in the need to hire more teachers.

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1. Including the District of Columbia.
2. The basic data used in this section comes from an annual survey conducted by the British Columbia Ministry of Education among all Canadian provinces. Some data not provided by the survey has been estimated on the basis of Statistics Canada data.

In the 1990s, the student-educator ratio varied slightly in Québec and the Atlantic Provinces, while it increased at a greater rate in Western Canada. In Ontario, it rose significantly. The increase in Ontario was due to job cuts resulting from the application of the 1993 Social Contract legislation. One of the objectives of this legislation was to reduce the number of teachers in school boards.

There were also budget cutbacks in Québec in the 1990s, but they affected mostly salaries. It should also be noted that, in their contract negotiations, Québec unions have always given priority to employment levels and job descriptions, while being more flexible with respect to salaries.

Table 1.8a

Student-teacher ratio in school boards: Québec and the United States

	1990-1991	1992-1993	1994-1995	1996-1997	1999-2000	2000-2001[e]
Québec	16.1	15.7	15.8	16.1	16.4	16.2
United States	16.7	16.9	16.8	16.6	15.7	14.9

Table 1.8b

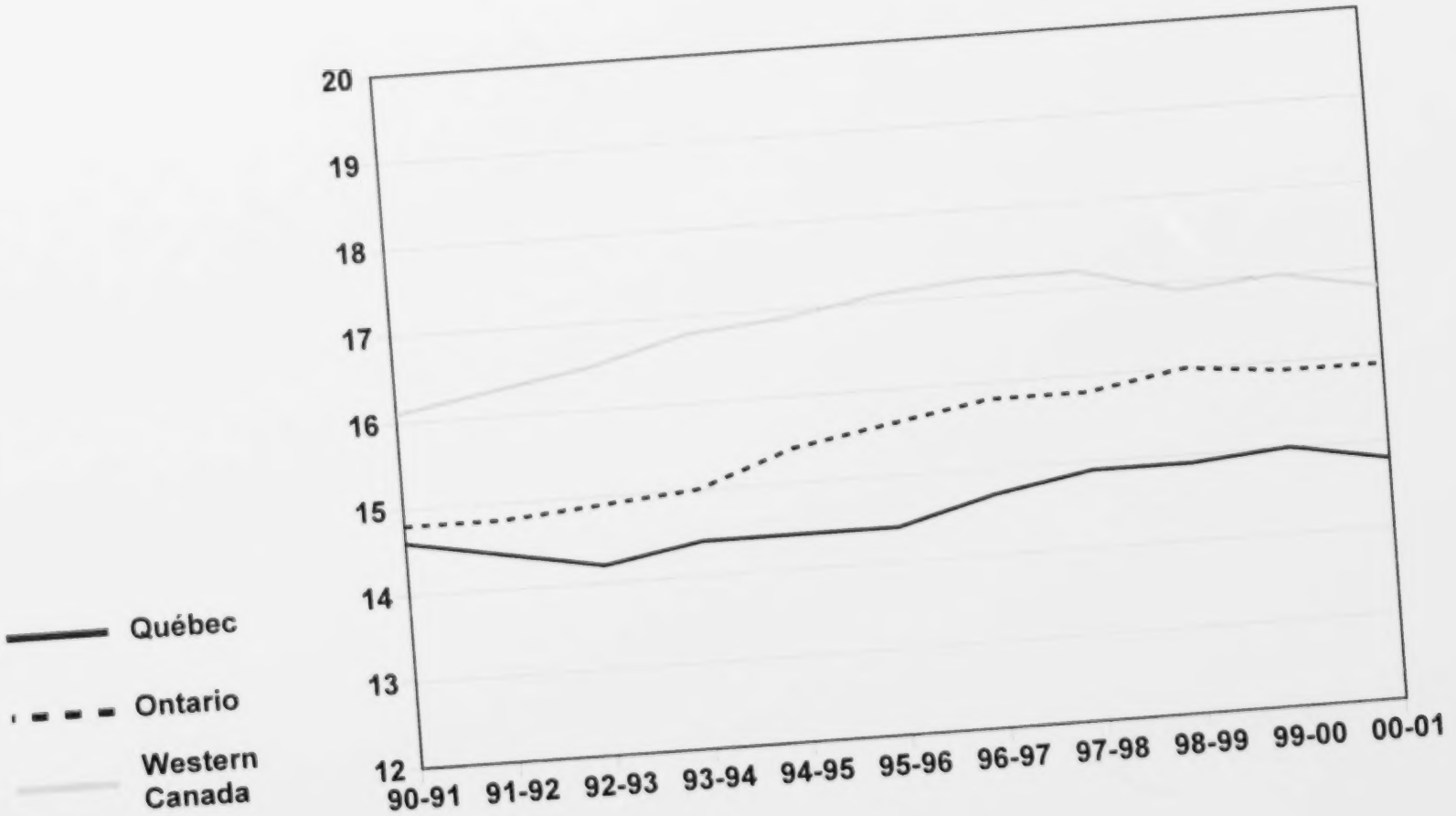
Student-educator ratio in school boards:[1] Québec and the other regions of Canada

	1990-1991	1992-1993	1994-1995	1996-1997	1999-2000	2000-2001[e]
Québec	**14.6**	**14.2**	**14.4**	**14.7**	**15.0**	**14.8**
Canada, excluding Québec	**15.4**	**15.6**	**16.0**	**16.3**	**16.3**	**16.3**
Atlantic Provinces	15.9	16.1	16.4	16.5	16.0	16.0
Ontario	14.8	14.9	15.4	15.8	15.9	15.9
Western Canada	16.1	16.5	16.9	17.2	17.0	16.8
Canada	**15.2**	**15.3**	**15.6**	**15.9**	**16.0**	**15.9**

e: Estimates
1. See definition in the text.

Graph 1.8

Student-teacher ratio in school boards: Québec, Ontario and Western Canada



1.9 Average Salary of Teachers in School Boards

In 2000-2001, educators in Québec earned less than educators in neighbouring regions.

In 2000-2001, the average salary of teachers in Québec school boards was estimated at $46 823,[1] compared with $51 049 in the United States.[2] A comparison of Québec with the United States as a whole for 2000-2001 reveals 24 U.S. states[3] where the average salary of teachers was higher than in Québec and 27 states where it was lower.

The data available for the other provinces uses a more encompassing concept of personnel. In addition to teachers, educators also include school administrators and nonteaching professionals who work with students (e.g. education consultants, guidance counsellors and pastoral animators).[4] Table 1.9b contains data on the average salary of educators. In 2000-2001, the average salary of educators in Québec was lower than in the rest of Canada. The difference between the average salary in Québec ($49 175) and in Ontario ($57 644) was 15%.

Between 1990 and 1998, the average salary of educators increased by 5% in Québec, while it rose by 19% in the rest of Canada. In Québec, in a battle against budget deficits, agreements between the government and unions have resulted in the average salary of teachers rising very little. Also, in 1997, a vast program of voluntary retirement resulted in a younger average age of teachers in Québec, and consequently, a decrease in the average salary.

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1. The average salary is calculated for all Québec teachers (regardless of their status).
2. The calculation of the average salary of U.S. teachers is based on data from the National Education Association. This data was expressed in Canadian dollars using the purchasing power parity rates (PPP) set by the OECD. "Purchasing Power Parities (PPPs) are the rates of currency conversion that equalize the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. Thus, PPPs are the rates of currency conversion which eliminate differences in price levels between countries." (OECD, *National Accounts*).
3. Including the District of Columbia.
4. The basic data used in this section comes from an annual survey conducted by the British Columbia Ministry of Education among all Canadian provinces. Some data not provided by the survey has been estimated on the basis of Statistics Canada data.

However, there was a significant increase in the average salary of teachers in Québec between 1998-1999 and 2000-2001 (10%). The considerable increase is primarily the result of the agreement concluded in April 2000 between the Québec government and the unions regarding a new salary structure for teachers (as part of pay equity) and of a new collective agreement. Salary scales were adjusted retroactively to 1995-1996 but the school boards' financial statements do not take them into account until 1999-2000; this explains the large increase observed in 1999-2000 (significant adjustment of salary scales compared with the previous year).[5]

A comparison of the salary of teachers in school boards in Québec with that of the member countries of the Organisation for Economic Co-operation and Development (OECD) is possible using indicators such as the starting salary, salary after 15 years of seniority and maximum salary.[6]

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5. It is important to note, however, that the amounts paid retroactively in 1999-2000 for past years are not considered for the purpose of calculating the average salary in 1999-2000 and that data on the average salary for past years has not been adjusted.
6. Refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *Statutory Salaries of Teachers in Public Elementary and Secondary Schools in 1997-1998: A Comparison of Québec and OECD Countries*, No. 19, September 2000. This document is available on the Internet at <http://www.meq.gouv.qc.ca>.

Table 1.9a

Average salary of teachers in school boards: Québec and the United States (in current dollars[1])

	1990-1991	1992-1993	1994-1995	1996-1997	1999-2000	2000-2001[e]
Québec	40 478	42 847	43 080	42 997	45 392	46 823
United States	43 009	44 837	45 844	45 788	48 817	51 049

Table 1.9b

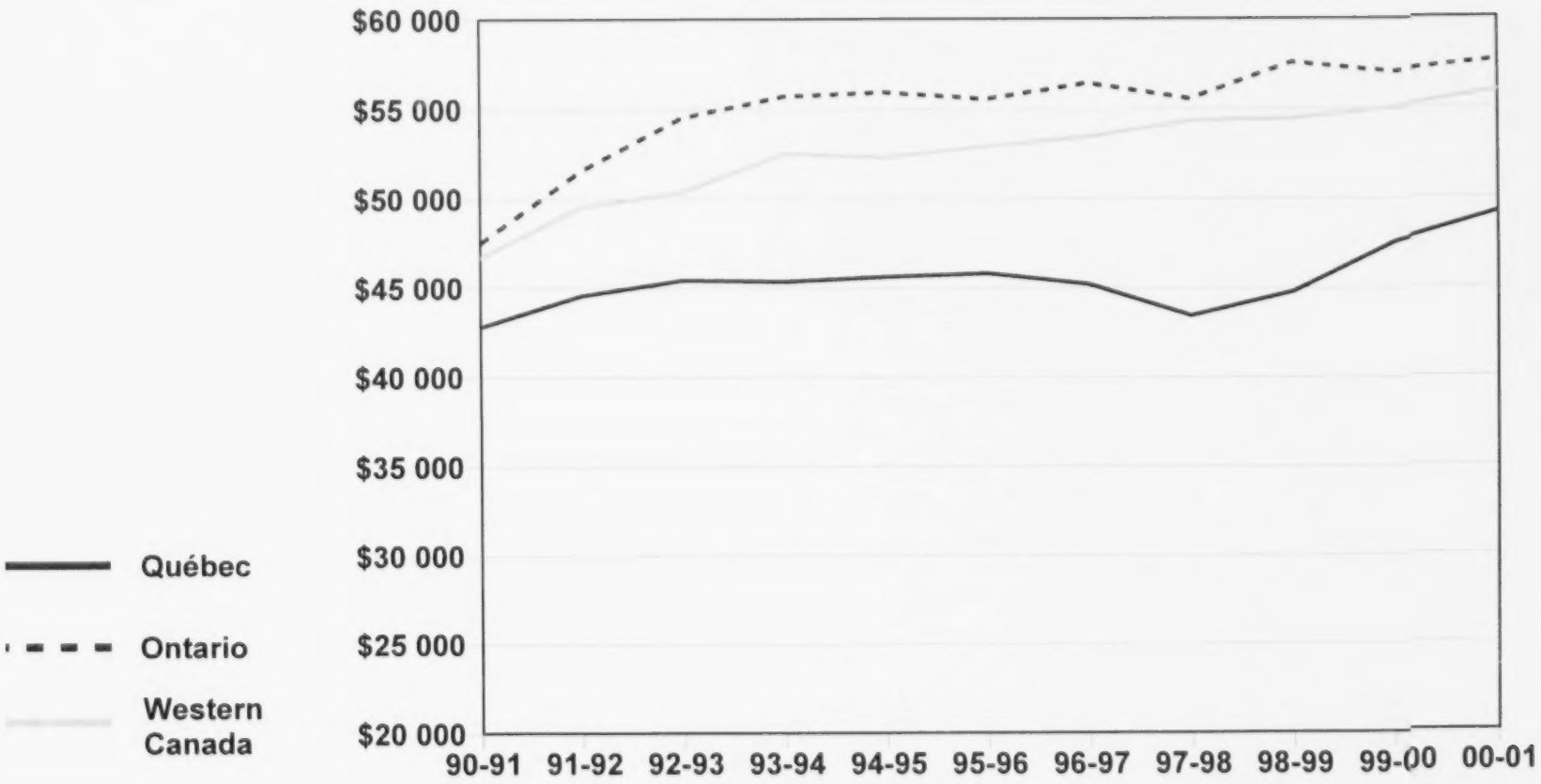
Average salary of educators in school boards:[2] Québec and the other regions of Canada (in current dollars)

	1990-1991	1992-1993	1994-1995	1996-1997	1999-2000	2000-2001[e]
Québec	**42 801**	**45 410**	**45 610**	**45 190**	**47 546**	**49 175**
Canada, excluding Québec	**46 898**	**52 117**	**53 728**	**54 517**	**55 446**	**56 150**
Atlantic Provinces	44 588	45 915	47 104	48 259	50 477	50 597
Ontario	47 470	54 530	55 932	56 444	57 055	57 644
Western Canada	46 691	50 379	52 315	53 448	55 065	55 945
Canada	**45 926**	**50 500**	**51 772**	**52 288**	**53 769**	**54 645**

e: Estimates
1. See Note 2 at the bottom of the text.
2. See definition in the text.

Graph 1.9

Average salary of teachers in school boards: Québec, Ontario and Western Canada (in current dollars)



1.10 CEGEP Spending

In 2000-2001, CEGEP spending on regular education was estimated at approximately $1.1 billion, with student enrollments at roughly 149 000.[1] Per-student spending was an estimated $7 650.

Between 1998-1999 and 2000-2001, CEGEP spending increased by 10%, in spite of a 4% decrease in enrollments. This resulted in a significant increase in per-student spending.

Between 1976 and 1981, CEGEP spending on regular education increased at an average compound rate of 14.8%. This rapid growth can be explained primarily by a high inflation rate, salary increases exceeding the inflation rate, and a considerable rise in enrollments (averaging 3.0% per year). This resulted in a 4.2% increase in per-student spending in constant dollars between 1976 and 1981.[2]

Between 1981 and 1989, the rise in operating expenses of CEGEPs was sharply curbed, with the average annual rate of increase in current-dollar spending dropping to 4.2%. This decrease was a result of a curtailment of the inflation rate, as well as budget cutbacks adopted by the Québec government. Enrollments also continued to rise until the mid-1980s, but then declined. Per-student spending in constant dollars was slightly lower in 1989-1990 than in 1981-1982.

In 1990-1991, per-student spending in current dollars was $6 920, or 8.6% higher than in 1989-1990 (which corresponds to a real growth of 3.4%). This increase can be explained primarily by a decline in the student-teacher ratio following the addition of new positions as part of a collective agreement. The increase in the number of teachers applies to activities such as departmental committees, practicums, professional development for teachers, and student support services.

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1. Data on enrollments is based on fall registration recognized for the purpose of funding the capital expenses.
2. The CEGEPs' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services in CEGEPs. Changes in spending in constant dollars reflect changes in the real funds available to CEGEPs.

In the 1990s, per-student spending in constant dollars followed a downward trend. This can be explained by budget cutbacks and the application of cost-cutting measures in CEGEPs. These measures were largely the result of agreements between the government and unions, which made it possible to lower labour costs. Thus, between 1990 and 1998, per-student spending in constant dollars decreased by 12%.

Between 1998-1999 and 2000-2001, there was a 14% increase in per-student spending in current dollars and a 7% increase in constant dollars. These increases were due primarily to new collective agreements for all CEGEP employees, support measures for CEGEPs (for the development of new information technologies, for careers in science, for success, etc.) and support for balanced budgets in certain CEGEPs.

Table 1.10

CEGEP spending[1]

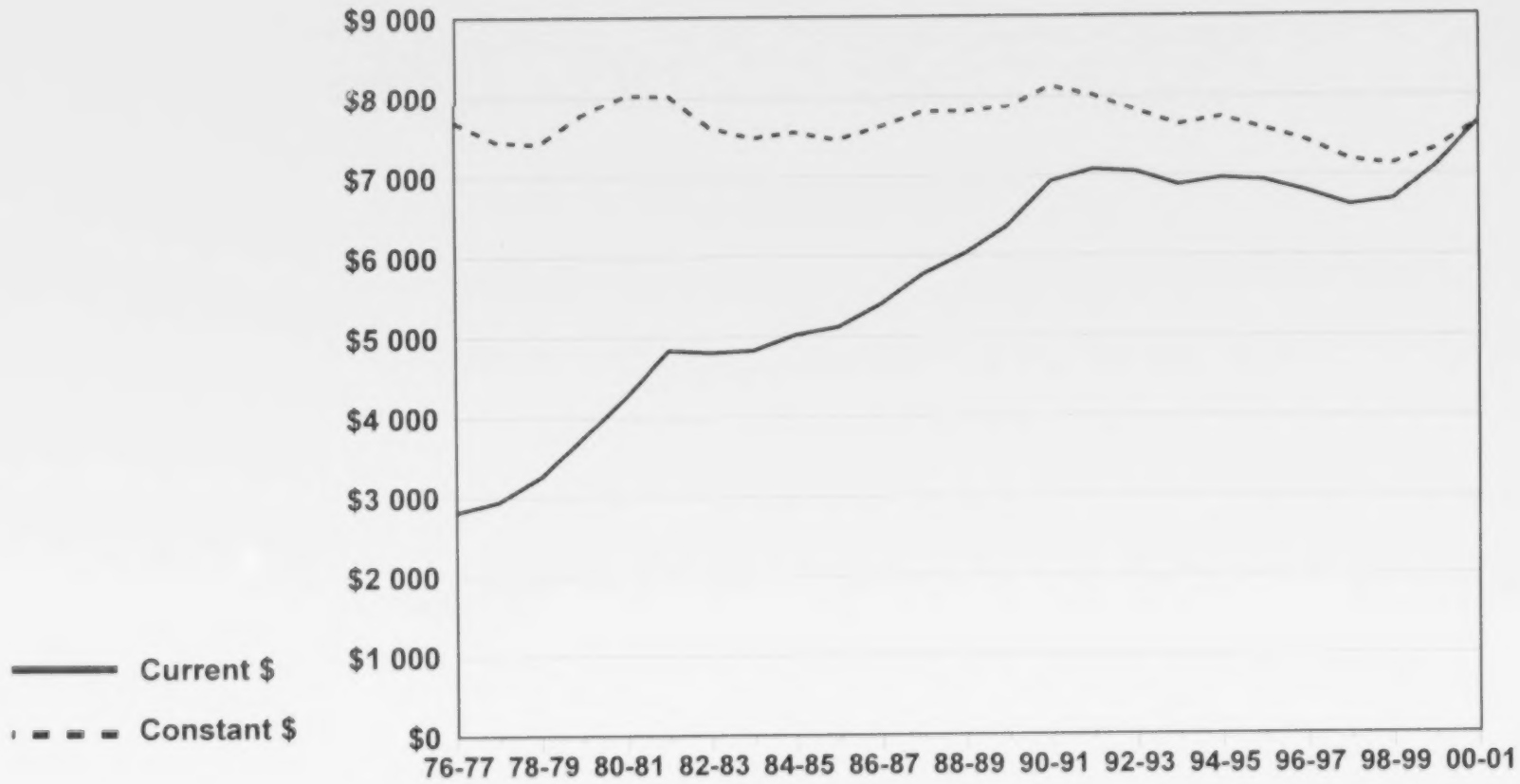
	1976-1977	1981-1982	1989-1990	1993-1994	1999-2000	2000-2001[e]
Total spending in current dollars (in millions of dollars)	298.7	596.0	830.7	1 074.9	1 082.6	1 137.3
Per-student spending in current dollars	2 810	4 831	6 370	6 876	7 095	7 650
Per-student spending in constant 2000-2001 dollars[2]	7 697	8 021	7 860	7 632	7 312	7 650

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities) and capital expenses financed directly from current revenues.
2. See Note 2 at the bottom of the text.

Graph 1.10

CEGEP spending per student in current dollars and constant 2000-2001 dollars



1.11 Student-Teacher Ratio, Average Teacher Salary and Cost of Teachers per Student in CEGEPs

This section is a complement to Section 1.10, which analyzed the changes in CEGEP spending. Salary costs for teaching personnel accounted for more than half the total of CEGEP spending in 2000-2001, and the changes in these costs were a determining factor in the changes in operating expenses.[1] Two factors determine the cost of teachers per student:[2] the student-teacher ratio, and the average salary of teaching personnel in CEGEPs.

In 2000-2001, the average number of students per teacher in CEGEPs was estimated at 12.8 and the average teacher's salary at $53 217. The actual cost of teachers has increased by 7% since 1998-1999.

In 2000-2001, the average number of students per teacher in CEGEPs was estimated at 12.8 and the average teacher's salary at $53 217. The student-teacher ratio is calculated by dividing the number of students by the number of teachers in the CEGEPs.[3] The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be considered as a composite indicator that is the result of three variables: the average number of students per class, the average teaching time of teachers and the average instruction time for students.

Between 1981 and 1989, the average number of students per teacher in CEGEPs rose from 12.3 to 14.3, while the average salary of teaching personnel increased by 36%, from $32 595 to $44 217. In comparison, the consumer price index (CPI) increased by 53% during this period. The per-student cost of teachers, in current dollars, went from $2 659

1. The salary costs considered in this section do not include employee benefits. If these were included, salary costs for teaching personnel would account for more than 60% of total CEGEP operating expenses.
2. The cost of teachers per student is calculated by dividing the wage bill for teaching personnel by the number of students.
3. Data on enrollments is based on fall registration recognized for the purpose of funding the capital expenses and data on teaching personnel is expressed in full-time equivalents.

in 1981-1982 to $3 098 in 1989-1990, for an increase of 17%, but the cost per student in constant dollars dropped by 13%.[4]

During the 1990s, the student-teacher ratio varied and was 12.8 in 2000-2001. The average salary increased by 14% between 1990 and 2000, and stood at $53 217 in 2000-2001. The cost of teachers per student grew by 21% in current dollars, but only by 3% in constant dollars between 1990 and 2000.

The labour cost reduction measures mentioned in Section 1.10 contributed to the drop in the actual cost of teachers per student between 1990 and 1998. Of particular note, once again, is the program of voluntary retirement that resulted in a younger average age of teachers. These measures were taken as part of the battle against budget deficits undertaken by the Québec government in the 1990s. In 1999-2000 and 2000-2001, the actual cost of teaching personnel increased, primarily because of new collective agreements for all CEGEP employees and an average decrease in the student-teacher ratio, from 13.8 in 1998-1999 to 12.8 in 2000-2001.

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4. The CEGEPs' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services in CEGEPs. Changes in spending in constant dollars reflect changes in the real funds available to CEGEPs.

Table 1.11

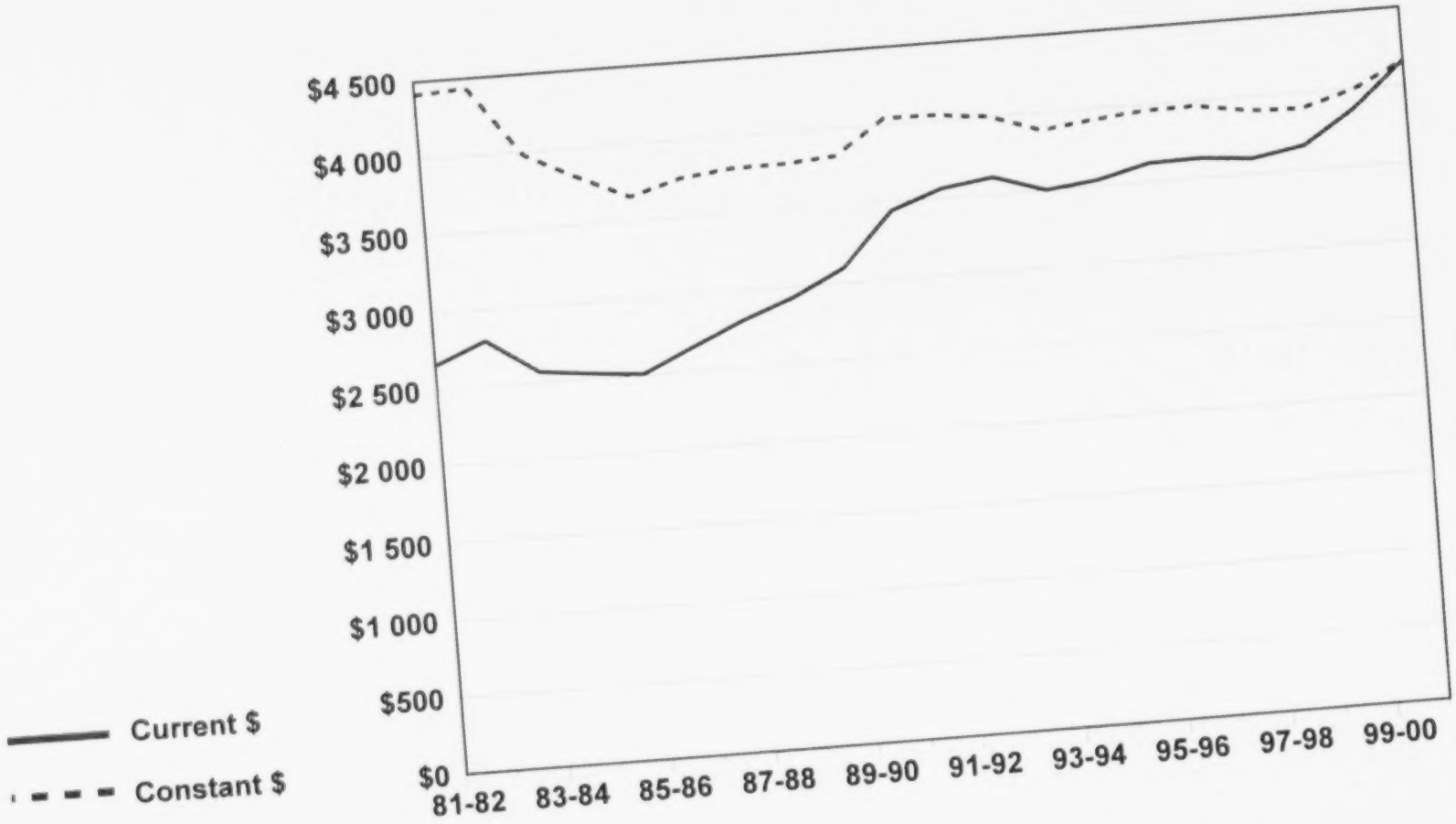
Student-teacher ratio,[1] average salary of teachers and cost of teachers per student in CEGEPs

	1981-1982	1989-1990	1990-1991	1993-1994	1999-2000	2000-2001[e]
Student-teacher ratio	12.3	14.3	13.5	13.9	13.4	12.8
Average salary in current dollars	32 595	44 217	46 512	48 789	51 722	53 217
Cost of teachers per student						
In current dollars	2 659	3 098	3 444	3 503	3 873	4 154
In constant 2000-2001 dollars	4 415	3 822	4 045	3 888	3 992	4 154

e: Estimates
1. See Note 3 at the bottom of the text.

Graph 1.11

Cost of teachers per student in CEGEPs in current dollars and constant 2000-2001 dollars



1.12 Total University Spending in Relation to the GDP

In 2000-2001, Québec allocated 1.49% of its gross domestic product (GDP) to university education,[1] compared with the Atlantic Provinces at 2.05%, Ontario at 1.30%, and Western Canada at 1.22%.[2]

In 2000-2001, the share of the GDP allocated to university education was 1.49% in Québec, compared with 1.31% in the rest of Canada. Higher spending in Québec is explained primarily by a per capita GDP that is lower than in the rest of Canada.

In 1976-1977, the share of the GDP allocated to university education was the same in Québec as in Ontario, but in subsequent years, the financial investment rose in Québec while dropping in Ontario and Western Canada.

Between 1981 and 1989, this share of the GDP was on a slight downward trend in Québec, Ontario and the Atlantic Provinces, while it increased in Western Canada. However, in the early 1990s the share of the GDP allocated to university education increased significantly in Québec, whereas the increase was less marked in the rest of Canada.

The gap between Québec and the rest of Canada therefore widened considerably. Between 1986 and 1993, total spending for university education in Québec increased by 73%, compared with 56% in the rest of Canada. Québec's higher spending is explained primarily by strong growth in research at its universities,[3] but also by a more rapid increase in real funds allocated to education.

Between 1993 and 2000, the share of the GDP allocated to university education dropped in Québec. It went from 1.98% in 1993-1994 to 1.49% in 2000-2001 as a result of budget cuts and the reduction in labour costs. In the rest of Canada, the share of the GDP allocated to university education went down as well, although not as significantly.

In 2000-2001, investment in university education remained higher in Québec than in the rest of Canada (except the Atlantic Provinces), owing mostly to the fact that the collective wealth, as measured by the per capita GDP, was relatively lower in Québec than in the rest of Canada.

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1. In 2000-2001, Québec spent $3.25 billion of its $218.6-billion GDP on university education.
2. The data on universities presented here has not been adjusted to take into account the organizational differences in the education systems.
3. See Section 1.16.

Table 1.12

Total spending allocated to university education[1] in relation to the GDP: Québec and the other regions of Canada (%)

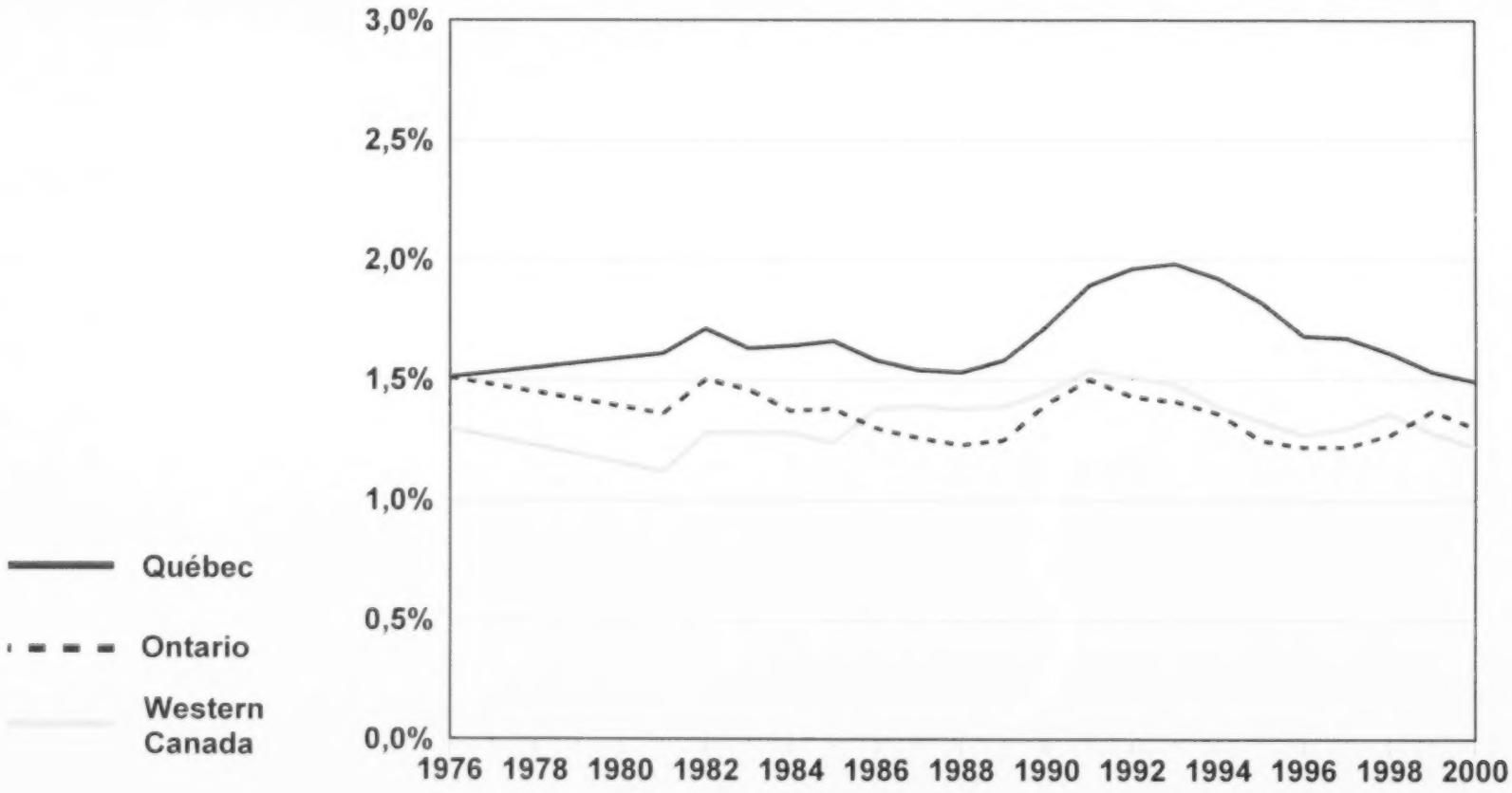
	1976-1977	1981-1982	1989-1990	1993-1994	1999-2000[e]	2000-2001[e]
Québec	**1.51**	**1.61**	**1.58**	**1.98**	**1.53**	**1.49**
Canada, excluding Québec	**1.50**	**1.34**	**1.40**	**1.53**	**1.40**	**1.31**
Atlantic Provinces	2.32	2.36	2.22	2.28	2.19	2.05
Ontario	1.51	1.36	1.25	1.41	1.37	1.30
Western Canada	1.30	1.12	1.39	1.48	1.28	1.22
Canada	**1.50**	**1.40**	**1.44**	**1.63**	**1.43**	**1.35**

e: Estimates

1. These figures include the operating and capital expenses for universities, the cost of student financial assistance, funded and sponsored research at the universities and the Ministère's administrative expenses (the portion attributable to university education). The calculation of the share of the GDP allocated to university education is based on data from Statistics Canada.

Graph 1.12

Total university spending in relation to the GDP: Québec, Ontario and Western Canada (%)



1.13 University Spending per Student[1]

In 1999-2000, spending per student by Québec universities (excluding funded research) was estimated at $14 318, compared with $13 647 in the Atlantic Provinces, $14 144 in Ontario and $15 375 in Western Canada.[2]

In 1999-2000, spending per student by Québec universities was lower than the Canadian average.

In order to ensure a fair comparison of data, the concept of spending used in this section includes the following funds: general, trust, endowment and capital.[3]

Previous editions of the *Education Indicators* showed that during the first half of the 1980s, spending per student rose at a much slower pace in Québec, such that in 1986-1987, it was lower in Québec than in the other regions of Canada. This slowdown in per-student spending in Québec can be explained by salary restrictions and budget cuts to Québec universities. However, in the second half of the 1980s until the mid-1990s, per-student spending rose more sharply in Québec than in the other regions of Canada. This increase was made possible because of the growth in government subsidies per student, but also owing to the increased revenues from tuition fees.

In 1996-1997, spending per student by universities was 13% higher in Québec than in the Atlantic Provinces and 16% higher than in Ontario; it was 7% lower than in Western Canada. In 1998-1999, per-student spending in Québec was

1. The data on universities presented here has not been adjusted to take into account the organizational differences in the education systems. See Section 1.3.
2. The calculation of university spending per student is based on data provided by Statistics Canada, and the most recent data available at the time this section was written was for 1999-2000. Because of the delays caused by the new Enhanced Student Information System (ESIS), Statistics Canada was unable to provide us with all the data necessary to calculate per-student spending for 2000-2001.
3. A more encompassing concept of spending was used here, since there are differences in the way in which spending is accounted for between funds, from province to province (especially between the general and the capital funds). Thus, part of the spending recorded in the capital fund in Québec appears in the general fund in Ontario. For example, Québec universities record most of their furniture and equipment expenses in the capital fund, while Ontario universities enter a large proportion of these expenses in the general fund.

lower than in 1996-1997. The decrease in per-student spending in Québec can be explained by budget cuts to universities and, more specifically, by a reduction in labour costs. In 1998-1999, spending per student was lower in Québec than the average for the rest of Canada.

Between 1998-1999 and 1999-2000, per-student spending increased by 5% in Québec and by 3% in the rest of Canada. This increase in spending in Québec is primarily a result of wage indexation and measures supporting balanced budgets in universities.

In 1999-2000, spending per student by Québec universities was slightly higher than in Ontario. If the spending is broken down by item of expenditure,[4] there is higher per-student spending in Québec on capital and financial expenses, as well as on teaching personnel[5] and administration. On the other hand, there is less spending in Québec than in Ontario on other categories of personnel and on activities related to computers and communications, libraries and student services.

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4. The Statistics Canada/CAUBO database provides a breakdown of university expenses by function and type of expenditure (refer to the publication *Financial Information of Universities and Colleges (1999-2000)*, prepared by Statistics Canada for the Canadian Association of University Business Officers [CAUBO]).
5. See Section 1.14.

Table 1.13

University operating and capital expenses per student:[1] Québec and the other regions of Canada (in current dollars)

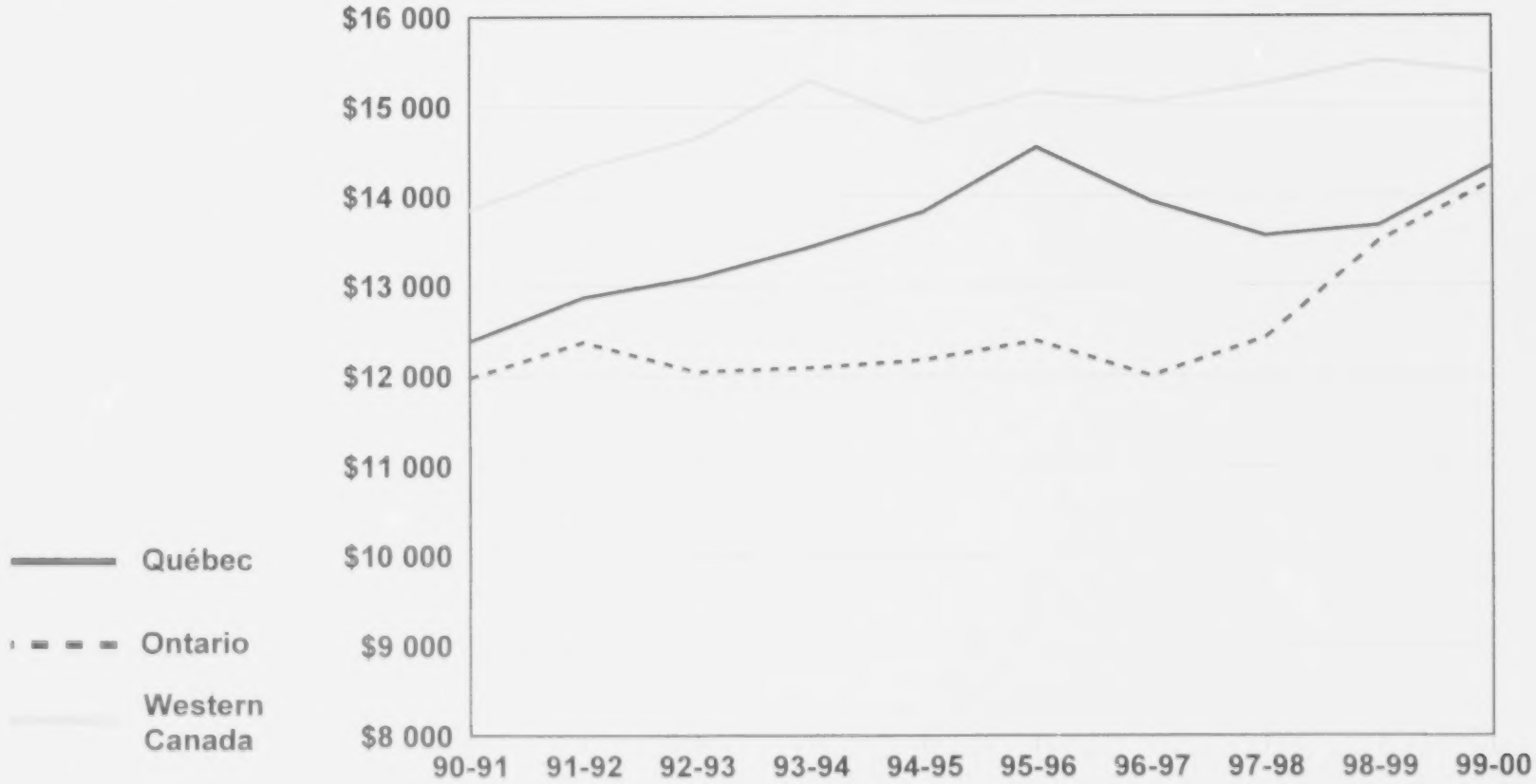
	1990-1991	1992-1993	1994-1995	1996-1997	1998-1999	1999-2000[e]
Québec	**12 381**	**13 085**	**13 817**	**13 931**	**13 653**	**14 318**
Canada, excluding Québec	**12 484**	**12 805**	**13 019**	**13 090**	**14 166**	**14 529**
Atlantic Provinces	11 256	11 467	11 973	12 327	13 094	13 647
Ontario	11 977	12 043	12 172	11 994	13 480	14 144
Western Canada	13 845	14 650	14 821	15 051	15 510	15 375
Canada	**12 457**	**12 877**	**13 226**	**13 301**	**14 041**	**14 478**

e: Estimates

1. The calculation of university spending per student is based on data from Statistics Canada. The universities considered by Statistics Canada include two types of institutions: those that are members of the Canadian Association of University Business Officers (CAUBO), and those that are not. In addition, the calculation of per-student spending is based on a standard method for counting student enrollments in all provinces, as follows: part-time enrollments are divided by 3.5 to convert them into full-time equivalents, and are then added to the full-time enrollments.

Graph 1.13

University operating and capital expenses per student: Québec, Ontario and Western Canada (in current dollars)



1.14 Average Number of Students per Professor, Average Salary and Cost of Professors per Student in Universities

In 1999-2000, the average number of students per professor was lower in Québec than in Ontario and the average professor's salary was 7% lower.

Salary spending for all categories of personnel (including employee benefits) accounts for approximately 80% of university operating expenses in Québec and in the rest of Canada. Professors' salaries are the largest component of payroll expenditure. Table 1.14b contains data on the cost of professors per student, which was lower in Québec ($4 805) than in the Atlantic Provinces ($5 042) and in Western Canada ($5 320) in 1999-2000. It was 7% higher than in Ontario ($4 502).

The wage bill considered in the calculation of per-student spending for professors includes deans, department heads, research professors and lecturers, as well as amounts paid to all other personnel employed in teaching positions (as defined by Statistics Canada).[1] Table 1.14a shows the data on the average number of students per professor and the average salary of professors in 1999-2000, according to region.[2]

In 1999-2000, the average number of students per professor in Québec (20.1) was higher than in the Atlantic Provinces (16.7) and in Western Canada (19.4), but lower than in Ontario (21.4). The average salary of professors in Québec ($75 736) was 10% higher than in the Atlantic Provinces ($68 707), but 7% lower than in Ontario ($81 721) and 5% lower than in Western Canada ($79 657).

It should be noted here that the average number of students per professor is calculated by dividing the number of students by the number of professors in university. The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-professor ratio must be

1. Employee benefits are not included in the wage bill used for this calculation.
2. This refers to full-time professors. In addition, the calculation of the average number of students per professor is based on a standard method for counting student enrollments in all the provinces, as follows: part-time enrollments are divided by 3.5 to convert them into full-time equivalents, and are then added to the full-time enrollments. Average salary includes basic salary as well as additional fees paid for administrative functions.

considered as a composite indicator that is the result of several variables, including the average number of students per class, the average teaching time of professors and the average instruction time for students. Unfortunately, there is very little data on the variables that determine the average number of students per professor and, when the information is available, it is not always recent.

Graph 1.14 provides a comparison of the changes in the average salary of university professors in Québec, Ontario and Western Canada. It reveals that between 1981 and 1999, the average salary increased less rapidly in Québec than in Ontario or Western Canada. During this period, the average salary of Québec professors experienced an average annual increase of 2.9%, compared with 4.1% in Ontario and 3.4% in Western Canada. The average inflation rate between 1981 and 1999 was approximately 3.5% in Québec and in the rest of Canada.

The more restrictive salary policies in Québec in the 1980s and 1990s and, more recently, agreements between the government and unions on the reduction of labour costs explain the slower growth in the average salary of professors in Québec than in Ontario and Western Canada.

Table 1.14a

The average number of students per professor and average salary of university professors: Québec and the other regions of Canada, 1999-2000

	Québec	Canada, excluding Québec	Atlantic Provinces	Ontario	Western Canada	Canada
Average number of students per professor	20.1	19.9	16.7	21.4	19.4	20.0
Average salary of professors ($)	75 736	78 824	68 707	81 721	79 657	78 076

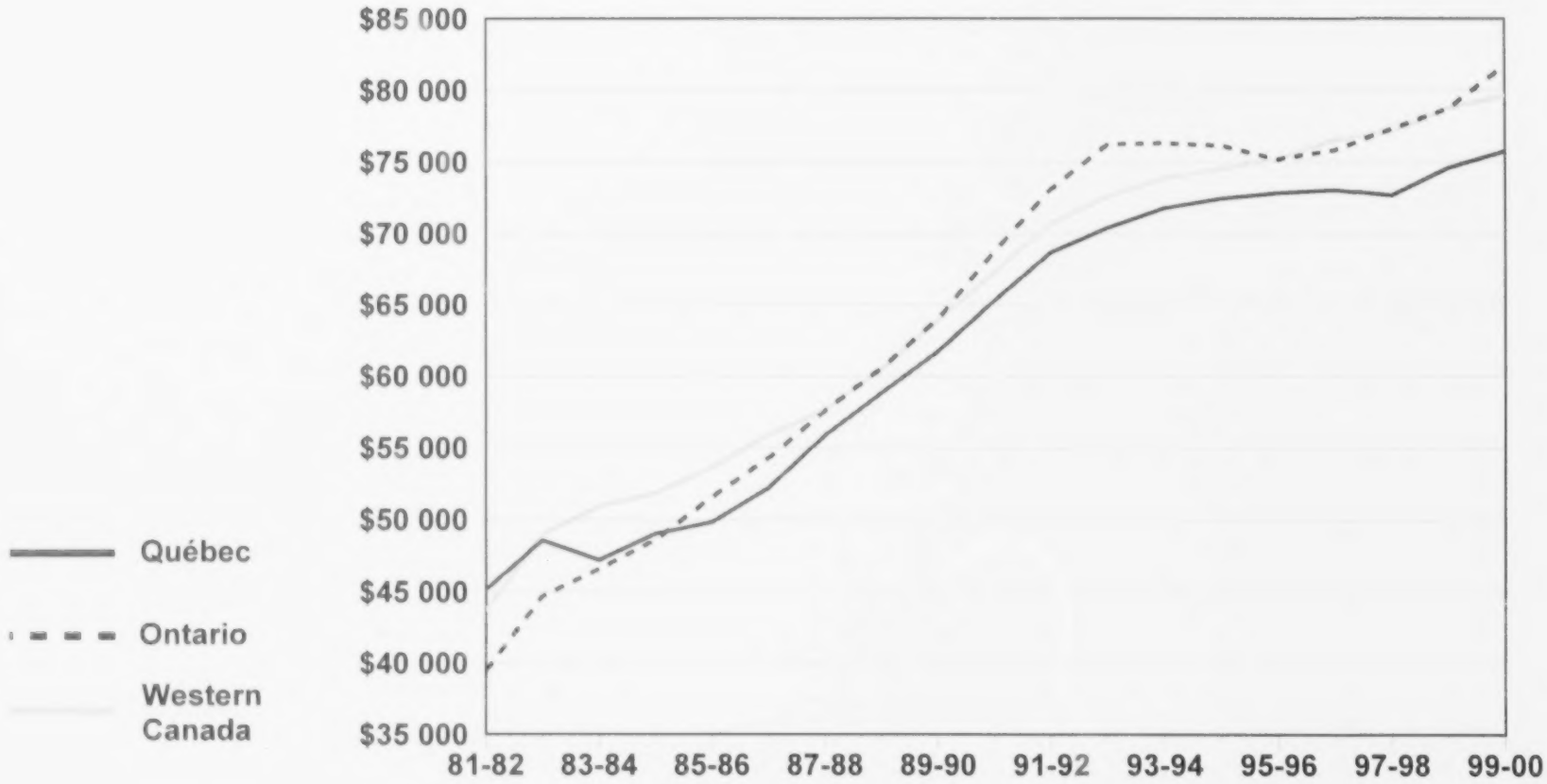
Table 1.14b

Per-student cost of professors in universities: Québec and the other regions of Canada, 1999-2000

	Québec	Canada, excluding Québec	Atlantic Provinces	Ontario	Western Canada	Canada
Cost of professors per student ($)	4 805	4 871	5 042	4 502	5 320	4 855

Graph 1.14

Average salary of professors in universities: Québec, Ontario and Western Canada (in current dollars)



1.15 Student Financial Assistance and Tuition Fees

In 2000-2001, the proportion of bursaries awarded increased significantly.

In Québec, financial assistance is available to students in full-time postsecondary education and in secondary-level vocational education programs. The loans and bursaries awarded under Québec's Student Financial Assistance Program are intended to supplement the contribution of the student and, where applicable, of his or her parents, sponsor or spouse: responsibility for the cost of education lies with them first and foremost. Government assistance covers the difference between the allowable expenses and the contribution of the student and, where applicable, of his or her parents, sponsor or spouse.

In 2000-2001, of those persons eligible for financial assistance, 21.7% of students in secondary vocational education, 24.8% of college students and 36.5% of university students received assistance. It should be noted that the financial assistance awarded to students in secondary vocational education falls under a program implemented in 1994-1995. A total of 128 385 students benefited from the Student Financial Assistance Program. Of these, 71 439 received only a loan, 56 445 received a loan and a bursary, and 501 received only a bursary. A total of $330.8 million was granted in the form of loans and $201.8 million, in bursaries.

In 2000-2001, of the university students who received financial assistance, 53.5% obtained only a loan, which averaged $2 570, whereas 46.5% obtained a loan and a bursary totalling an average of $7 093. Those who received a loan and a bursary obtained on average slightly less than half of the assistance in the form of a bursary.

Table 1.15b presents historical data on the breakdown of financial assistance awarded to Québec students attending university. In 1984-1985, loans made up 53.6% of the total assistance awarded and bursaries, 46.4%. In the years that followed, the portion of assistance granted in the form of loans increased and the portion awarded in bursaries decreased, such that in 1999-2000, the corresponding percentages were 68.0% and 32.0%, respectively. However, in 2000-2001, there was a reversal in this trend. The increase in the portion of bursaries awarded in 2000-2001 is related to the 25% reduction in the maximum amount of loan awarded due to the funding obtained as part of the Millennium Bursaries.

In 2000-2001, upon completion of their undergraduate studies, Québec students who had received loans owed an average of $11 674. The average debt for graduate studies was $16 170 and for postgraduate studies, $20 753.

Student loans contracted for college and undergraduate studies averaged $14 435 in 2000-2001; for college through to graduate studies, $21 726; and for college to postgraduate studies, $29 493.

Although these debt levels are relatively high, they are lower in Québec than elsewhere in Canada. This is partly explained by the fact that, on average, Québec awards more bursaries than the other provinces and that tuition fees in Québec universities are the lowest in Canada.

In fact, tuition fees in Québec universities are 42% of the amount charged in the rest of Canada, having remained frozen for a number of years. Although there were major increases at the beginning of the 1990s, tuition fees have remained approximately at the same level in Québec since 1993-1994, whereas they have continued to climb in the other regions of Canada. The gap between Québec and the rest of Canada has once again begun to widen, and in 2001-2002, tuition fees in the rest of Canada ($4 009) were 2.4 times higher than in Québec ($1 691).

Table 1.15a

Average tuition fees for full-time undergraduate university students: Québec and the other regions of Canada (in current dollars)

	1989-1990	1990-1991	1991-1992	1993-1994	2000-2001	2001-2002[p]
Québec	**581**	**948**	**1 350**	**1 630**	**1 691[1]**	**1 691[1]**
Canada, excluding Québec	**1 541**	**1 662**	**1 852**	**2 202**	**3 858**	**4 009**
Atlantic Provinces	1 689	1 802	2 023	2 446	3 969	4 102
Ontario	1 561	1 684	1 819	2 076	4 199	4 396
Western Canada	1 440	1 562	1 828	2 298	3 236	3 319

Table 1.15b

Proportion of financial assistance awarded to Québec university students in the form of loans and bursaries (%)

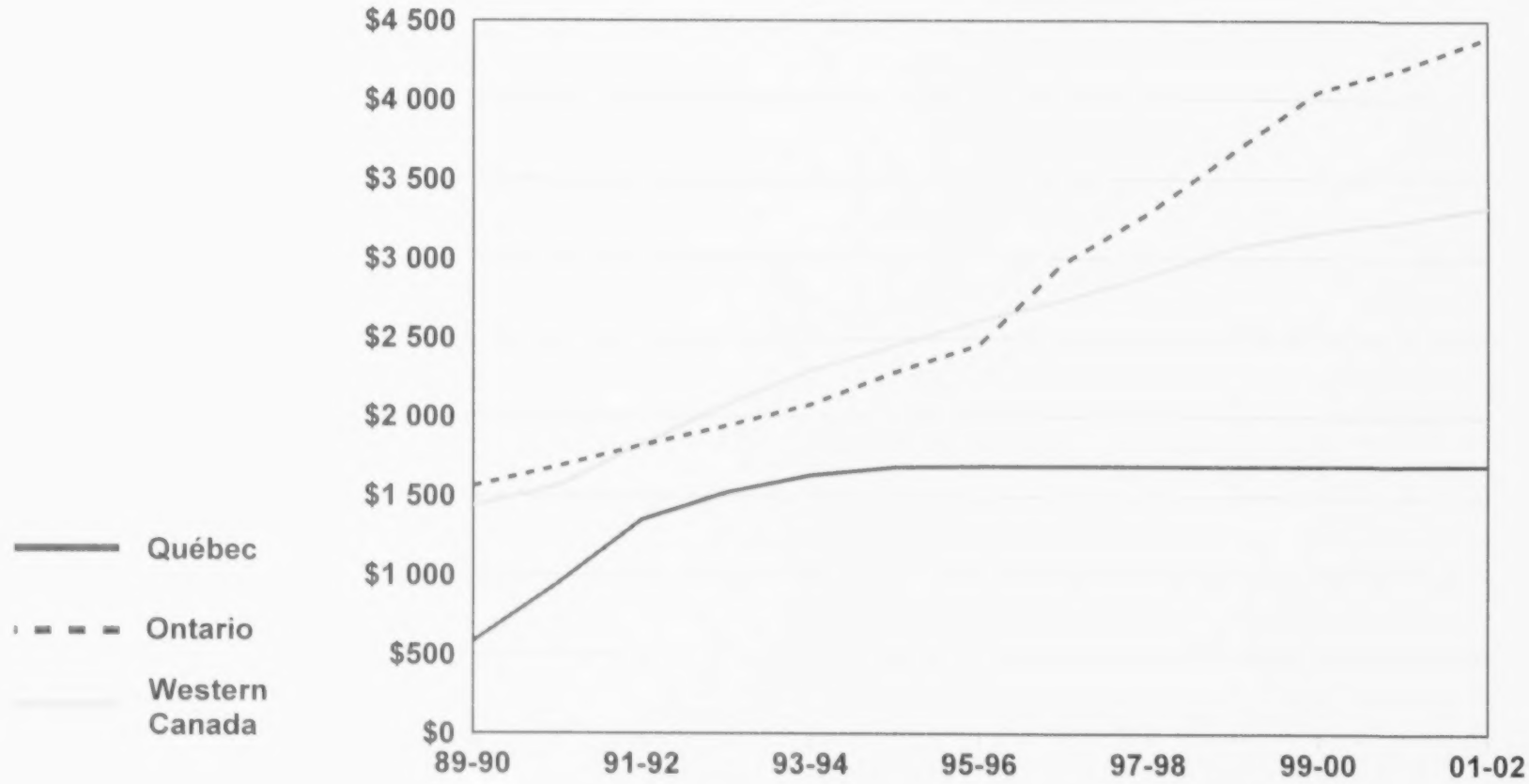
	1984-1985	1989-1990	1991-1992	1993-1994	1999-2000	2000-2001
Loans	53.6	64.5	60.5	63.0	68.0	59.3
Bursaries	46.4	35.5	39.5	37.0	32.0	40.7

p: Preliminary figures

1. In Québec, as of the fall of 1997, Canadian students not residing in Québec must pay an additional amount that has not been taken into account in the calculation of the average tuition fees.

Graph 1.15

Average tuition fees for full-time undergraduate university students: Québec, Ontario and Western Canada (in current dollars)



1.16 Funded and Sponsored Research in Universities

The amount of funding through grants and research contracts allocated to universities has increased significantly, rising from $401.4 million in 1989-1990 to $722.1 million in 1999-2000. This represents an average annual increase of 6%. Funding per research professor rose from $49 387 to $90 209, for an average annual increase of 8.4%. In comparison, the consumer price index (CPI) increased by 2% during this period.

In the period between 1989-1990 and 1992-1993, the funding allocated to university research increased sharply, but dropped from 1992-1993 to 1997-1998. In 1998-1999, it once again increased sharply.

The amounts allocated to university research increased unevenly in the period in question. From 1989-1990 to 1992-1993, the amounts allocated to university research increased on average 18% per year, mainly because of the Québec government's tax incentives for research and development; then, after the disappearance of these tax incentives, contributions decreased by an average of 1.6% per year between 1992-1993 and 1997-1998. Finally, the upward trend resumed in 1998-1999 with an average increase of 9.3%.

From 1992-1993 to 1997-1998, the contribution of the Canadian government declined by 1.6% per year on average, at the same pace as total contributions. For the same period, the Québec government contribution increased by 2.5%. During this time, contributions from the Canadian private sector dropped by 6.9% per year on average with the disappearance of tax incentives. The upward trend was marked in 1998-1999, for all sources of funding, with the largest increase for the federal government (14.1% on average) and the smallest increase for the Canadian private sector (5.0%).

In 1999-2000, the contribution from the Canadian government constituted 38.1% of grants and research contracts allocated to universities. The share from the Québec government was 23%, from the Canadian private sector, 25%, and from other sources, 13.8%.

In 1999-2000, 79.9% of grants and research contracts were awarded in the fields of health sciences (37.5%), pure sciences (23.8%) and applied sciences (18.6%). Next came social sciences (7.4%), business administration (2.7%) and education (1.7%).

Health sciences received 38.1% of its grants and research contracts from the private sector and 29.7% from the Canadian government. The federal government also funded 53.8% of the research in pure sciences and 45.3% in applied sciences.

Funding for research in education varied between $9 and $12.1 million from 1989-1990 to 1999-2000, reaching a high in 1994-1995 of $15.1 million. Since 1997-1998, funding has grown by an average of 10.6%.

Table 1.16

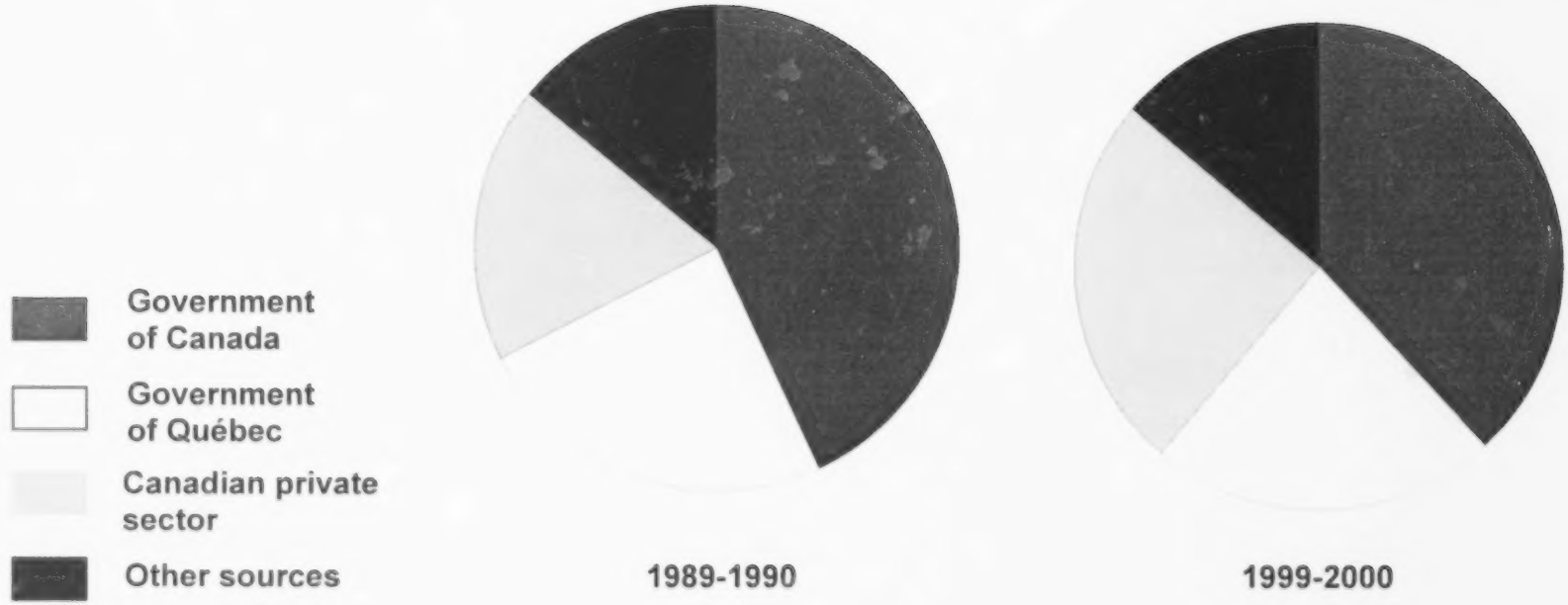
Funded and sponsored research according to source of funding and per research professor

	1989-1990	1992-1993	1993-1994	1997-1998	1998-1999	1999-2000
Grants and research contracts (in millions of dollars),[1] by source						
Government of Canada	172.8	229.0	226.3	211.6	229.7	275.4
Government of Québec	98.1	125.7	132.9	142.5	155.2	166.6
Canadian private sector	73.8	234.4	199.6	163.8	179.0	180.5
Other sources	56.6	65.9	74.1	87.3	97.0	99.7
Total	401.4	655.0	632.9	604.5	660.9	722.1
Number of research professors[2]	**8 127**	**8 860**	**8 954**	**8 144**	**8 046**	**8 005**
Amount per research professor ($)	**49 387**	**73 924**	**70 678**	**74 225**	**82 135**	**90 209**

1. This refers to all research receiving direct assistance (grants, contracts, sponsorships, etc.) from either the university itself or outside organizations. Included are research projects which are conducted under the supervision of university research professors and for which funds have been put into specific accounts managed by the financial services or accounting department of the university or of a hospital or university-affiliated centre (as defined by the Système d'information sur la recherche universitaire [SIRU]).
2. This refers to career professors who occupy permanent positions in Québec universities, regardless of whether they are currently involved full-time in teaching-related activities or on sabbatical or career development leave. They may also assume certain administrative tasks. For example, department heads, deans and assistant deans often continue to be active in teaching or research. However, our definition of research professor excludes administrators of services (library directors, registrars, etc.) and senior administrators (rectors and vice-rectors). (Source: Ministère de l'Éducation and Conference of Rectors and Principals of Quebec Universities, *Enquête sur le personnel enseignant*).

Graph 1.16

Distribution of grants and research contracts, by source of funding



2.1 School Life Expectancy

A child who began elementary school in 2000-2001 can expect to spend 15.4 years in the education system.[1] Since 1988-1989, 0.7 years of schooling have been added for male students, and 1.0 years for female students. School life expectancy has not improved from the 15.7 years observed in 1993-1994. For male students, it has even decreased by a half year since then. In 1999-2000, the value observed (15.4 years) was 0.3 years less than the school life expectancy observed in France for the same period.[2]

From elementary to university education, in 2000-2001, school-aged Quebeckers could expect to stay in school for an average of 15.4 years.

A breakdown by level of education reveals that all increases in the past 12 years are attributable to either adult education or postsecondary education. More than half of the additional schooling is a result of college and university studies. At the elementary and secondary levels, schooling rose by 0.30 years, resulting from an increase of 0.52 years in the adult sector and a drop of 0.22 years in the youth sector.

For elementary and secondary school, the actual durations of schooling more or less correspond to the projected length of studies. This is not surprising given that enrollment at these levels of education is virtually universal and compulsory until almost the end of secondary school. The reason that the average duration of schooling is less than the length of programs at the college and university levels is primarily because not all students go on to postsecondary education.

School life expectancy does not necessarily correspond to the number of years of study begun and successfully completed because grades repeated are included in the average duration. The very slight decline since 1992-1993 in the duration of schooling at the elementary and secondary levels can be explained simply by the decrease in the

1. Technically, school life expectancy for a school year is equal to the sum of the schooling rates (or school attendance rates) for full-time studies (or the equivalent) per year of age. A schooling rate is equivalent to the average number of years of schooling per person. The sum of the rates per age indicates the hypothetical duration of studies for a child who begins elementary school and who, throughout his or her progression through school, is in the schooling situation observed for a given year at various ages.
2. Ministère de l'Éducation nationale, Direction de la programmation et du développement, *L'état de l'École*, Paris, Vol. 11, October 2001.

number of years that are repeated (see Section 2.7). At the elementary and secondary levels, male students attend school slightly longer than female students (11.9 and 11.7 years, respectively) precisely because they have more difficulty. At the college and university levels, women tend to stay in school longer because more of them enroll in postsecondary education than men (see Sections 2.8 and 2.10). Women attend postsecondary school for an average of 4.1 years, compared with 3.0 years for men.

Table 2.1

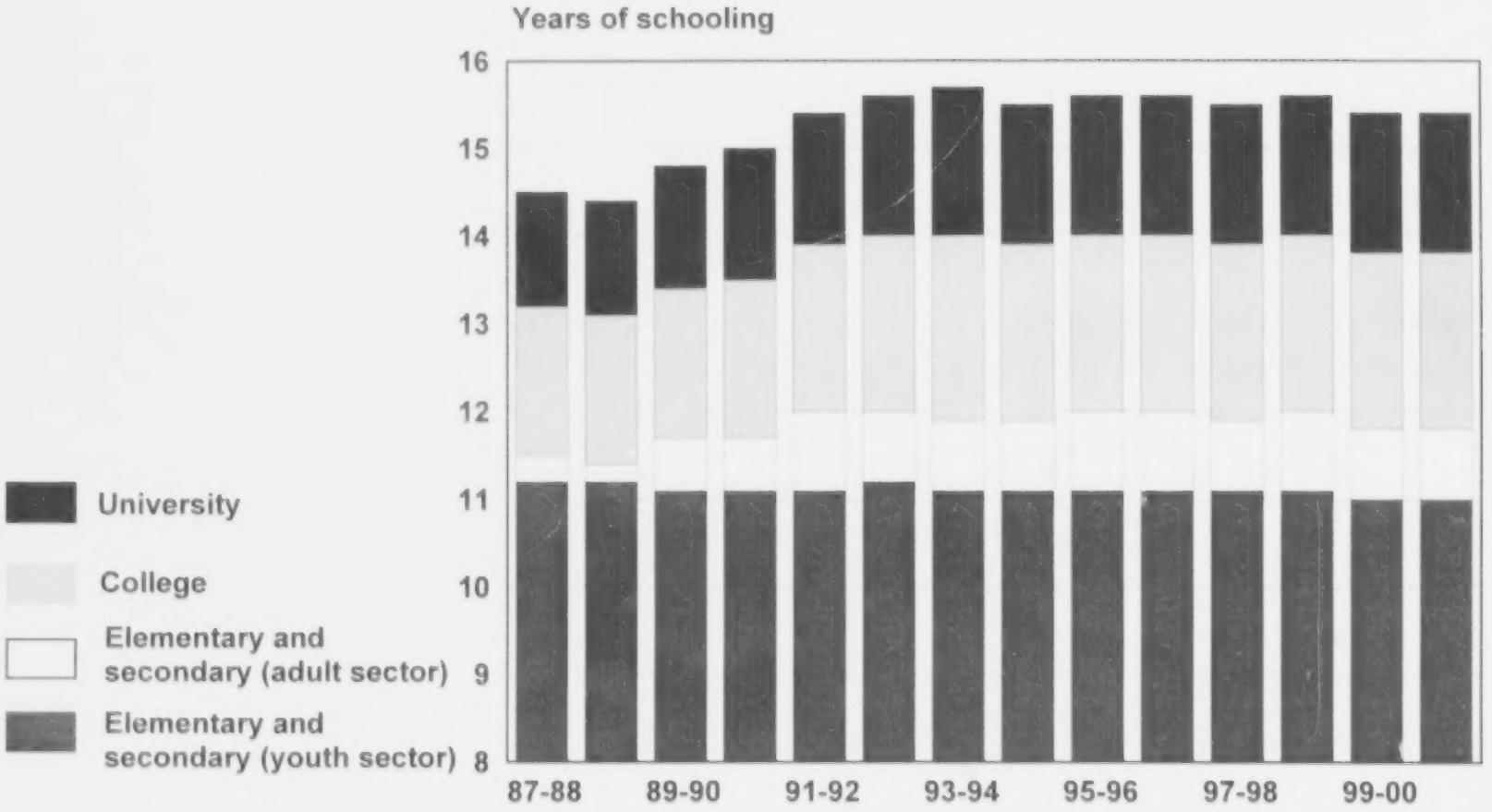
School life expectancy for a child entering elementary school, by gender and level of education (in years)

	1987-1988	1988-1989	1993-1994	1998-1999	1999-2000	2000-2001
All levels of education by gender						
Male	N/A	14.2	15.4	15.1	15.0	14.9
Female	N/A	14.8	16.0	15.9	15.8	15.8
Total	**14.5**	**14.5**	**15.7**	**15.5**	**15.4**	**15.4**
Both genders according to level of education						
Elementary (youth sector)	6.14	6.16	6.12	6.07	6.08	6.07
Secondary (youth sector)	5.09	5.03	5.01	5.01	4.97	4.94
Elementary and secondary (adult sector)	0.30	0.23	0.84	0.87	0.82	0.82
College	1.74	1.74	2.06	1.99	1.95	1.93
University	1.28	1.34	1.66	1.57	1.57	1.58

N/A: Data not available

Graph 2.1

School life expectancy for a child entering elementary school (in years)



2.2 Enrollment in Preschool Education

In 2000-2001, 98.1% of all eligible children attended kindergarten for 5-year-olds, almost all of them on a full-time basis.

Enrollment in kindergarten for 5-year-olds[1] has varied between 97% and 99% for a number of years. There is no difference between the enrollment of boys and girls in either kindergarten for 5-year-olds or kindergarten for 4-year-olds. In the past, enrollment in kindergarten for 4-year-olds varied between 6% and 9%. It has been significantly higher since 1994-1995 because children in Passe-partout play groups are now included, and it stood at 16.7% in 2000-2001.

For a long time, children enrolled in part-time kindergarten[2] accounted for approximately 87% of all students in kindergarten, and this rate was the same for boys as for girls. In 1997-1998, with the kindergarten reform, the situation was completely reversed as almost all boys and girls in kindergarten for 5-year-olds started to attend on a full-time basis.

Around the world, daycare centres, kindergartens, regular schools and families participate to varying degrees in the education of young children. In Québec, a relatively large portion of educational activities are entrusted to daycare centres, while the official education system becomes involved later in the child's life. Thus, in Québec, 5-year-olds are about as likely to attend school–kindergarten or elementary school–as children in member countries of the Organisation for Economic Co-operation and Development (OECD).[3] In 1999-2000, few countries did not have virtual

1. This refers to the number of children in kindergarten for 5-year-olds (regardless of their age) in proportion to the population of 5-year-olds, or 4-year-olds in the case of kindergarten for 4-year-olds. Very few children who are not 5 years of age on September 30 are enrolled in kindergarten for 5-year-olds, and even fewer children in kindergarten for 4-year-olds are not 4 years of age. Variations in the estimates of the population aged 4 or 5 may affect the calculation of these rates, probably more so than any other factor.
2. In kindergarten for 5-year-olds, part-time attendance means five half-days per week and full-time attendance, five full days per week. In kindergarten for 4-year-olds, part-time attendance means one to four half-days per week and full-time attendance, five half-days per week.
3. The OECD calculates net enrollment rates, that is, the proportion of children of a given age who attend kindergarten or elementary school. These two levels are combined, since there are major differences among countries. The net enrollment rate does not take into account whether children attend school part-time or full-time, or their hours or days of attendance. Here too, major differences can be seen among countries.

universal access to school for 5-year-olds (Sweden was one exception). On the other hand, with respect to educational activities for 4-year-olds, Québec is far behind those countries in which the enrollment of 4-year-olds is almost identical to that of 5-year-olds. Similarly, in Québec and the rest of Canada, 3-year-olds do not attend school; this is a rare exception among OECD countries.

Children with handicaps or with learning or adjustment difficulties account for 1.8% of students in kindergarten for 5-year-olds. For girls, the proportion was 1.2% and it was almost double (2.3%) for boys.

Table 2.2

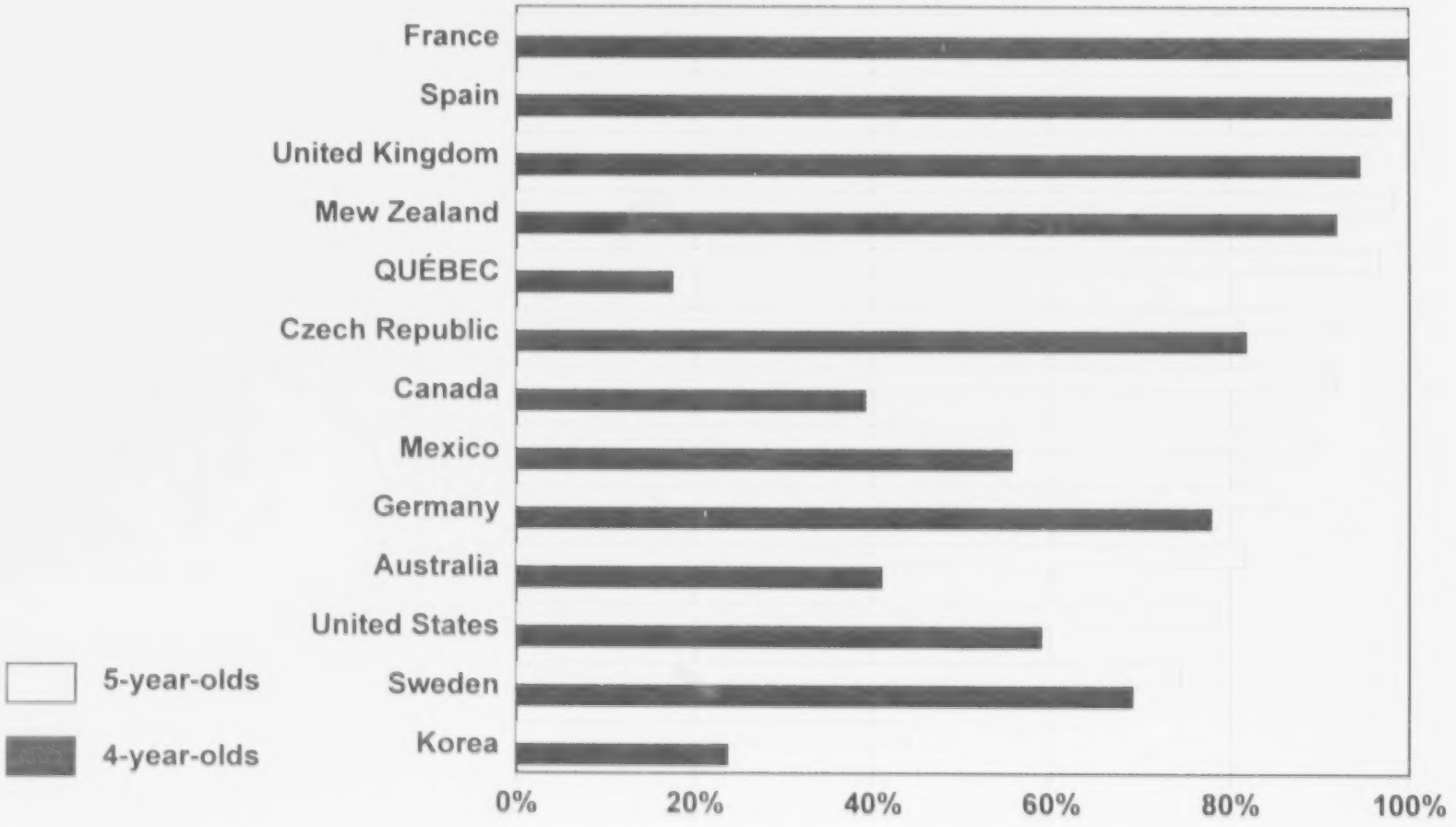
Proportion of children enrolled in kindergarten for 4-year-olds and for 5-year-olds (%)

	1982-1983	1992-1993	1997-1998	1998-1999	1999-2000	2000-2001
Kindergarten for 4-year-olds	**8.0**	**9.2**	**17.4**	**17.6**	**17.1**	**16.7**
Passe-partout play groups	—	—	8.5	8.4	7.6	7.4
Other categories	—	—	9.0	9.1	9.5	9.4
Kindergarten for 5-year-olds	**97.4**	**96.7**	**98.4**	**97.9**	**98.5**	**98.1**
Full-time[1]	—	9.2	97.8	97.3	98.3	98.1
Part-time[2]	—	87.6	0.6	0.6	0.2	0.0

—: Not applicable
1. Full-time: five full days
2. Part-time: five half-days

Graph 2.2

Net enrollment rates for 4-year-olds and 5-year-olds: Québec, Canada and other countries, 1999-2000 (%)



2.3 Enrollment in Secondary IV and V, General Education–Youth Sector

Enrollment in Secondary V stood at 77.2% in 2000-2001, and has been climbing steadily since 1996-1997. The Secondary IV enrollment rate of 83.8% is the lowest rate observed in general in the past ten years; enrollment in Secondary V in 2001-2002 is therefore also expected to be on the decline.

In 2000-2001, in general education in the youth sector, enrollment in Secondary V was 77.2%. With the exception of 1995-1996 (78.5%), this is the highest rate ever observed.

From a more historical perspective, Graph 2.3 shows that enrollment in Secondary IV and V increased appreciably in the 1980s. This trend can be explained by the fact that admission to vocational education was delayed to ensure that students spent an extra year in general education. On the other hand, the drop observed in 1985-1986 (in Secondary IV) and in 1986-1987 (in Secondary V) was due to the raising of the pass mark.[1] There was a temporary decline in student retention, but it was not long before an upward trend took hold once again.

Enrollment in Secondary I is virtually universal,[2] that is, 98% in 2000-2001; this represents an increase over recent years. In 2000-2001, 96% of young people were enrolled in Secondary II, and 91% in Secondary III.

Differences in enrollment between female and male students appear in Secondary III, where female students are ahead of the male students by 5 percentage points. The gap widens in Secondary IV to 7 percentage points in favour of the female students, and to 12 percentage points in Secondary V.

---

1. The new, higher pass mark was applied to students entering secondary school in 1982-1983.
2. Some young people are not educated in the official education system. They may receive their schooling in reception centres, in schools that are not legally recognized or at home.

Table 2.3

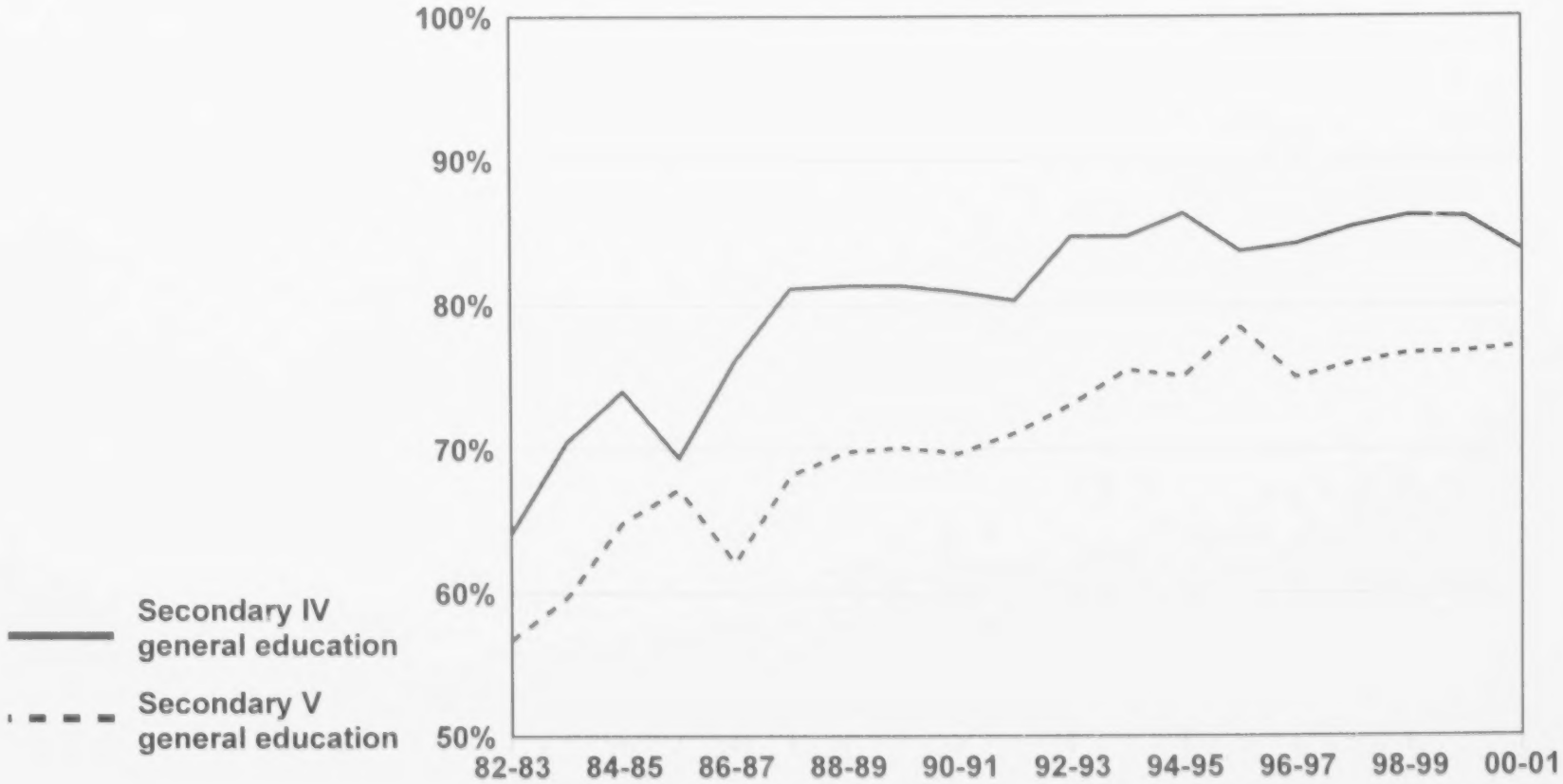
Proportion of young people enrolling in Secondary IV and V in general education in the public and private systems, by gender (%)

	1982-1983	1992-1993	1997-1998	1998-1999	1999-2000	2000-2001
Secondary IV	**64.1**	**84.7**	**85.4**	**86.2**	**86.1**	**83.8**
Male	59.9	81.6	82.0	82.9	83.0	80.4
Female	68.6	87.9	89.1	89.7	89.5	87.5
Secondary V	**56.7**	**73.1**	**76.0**	**76.7**	**76.8**	**77.2**
Male	53.6	68.4	70.4	71.0	71.4	71.5
Female	60.0	78.2	81.9	82.7	82.5	83.2

Note: Students enrolled in vocational education are not included.

Graph 2.3

Proportion of young people enrolling in Secondary IV and V in general education in the public and private systems combined (%)



2.4 Enrollment in Secondary Vocational Education–Youth and Adult Sectors

The proportion of students under the age of 20 enrolling in vocational education programs was 16.7% in 2000-2001, an increase compared with 1998-1999 (16.2%). Since 1984-1985, enrollment of students already holding a Secondary School Diploma (SSD) has been rising almost steadily, reaching 10.0% in 2000-2001.

In 2000-2001, 16.7% of young people under the age of 20, 60% of whom already held an SSD, enrolled in vocational education.

As short vocational programs were phased out, most students who would normally have opted for these programs in the past are now enrolled in individualized paths for learning or, more likely still, in work skills and life skills education programs, which are a part of general education. Enrollment of students without diplomas was 6.7% in 2000-2001 and represented only 40% of all people under the age of 20 enrolling in a vocational education program. This situation has been relatively stable in the past few years.

Vocational education programs attract more male than female students. Thus, in 2000-2001, 20.4% of male students opted for this path, compared with 12.8% of female students. This situation applies equally to students who had a diploma and to those who did not. This is the opposite of what has been occurring in general education in the youth sector (see Section 2.3), where female students tend to stay in school longer. Male students, who are more likely to enroll in vocational education programs than female students, more often leave general education and the youth sector.

Table 2.4

Enrollment in vocational education of students under the age of 20, youth and adult sectors combined (%)

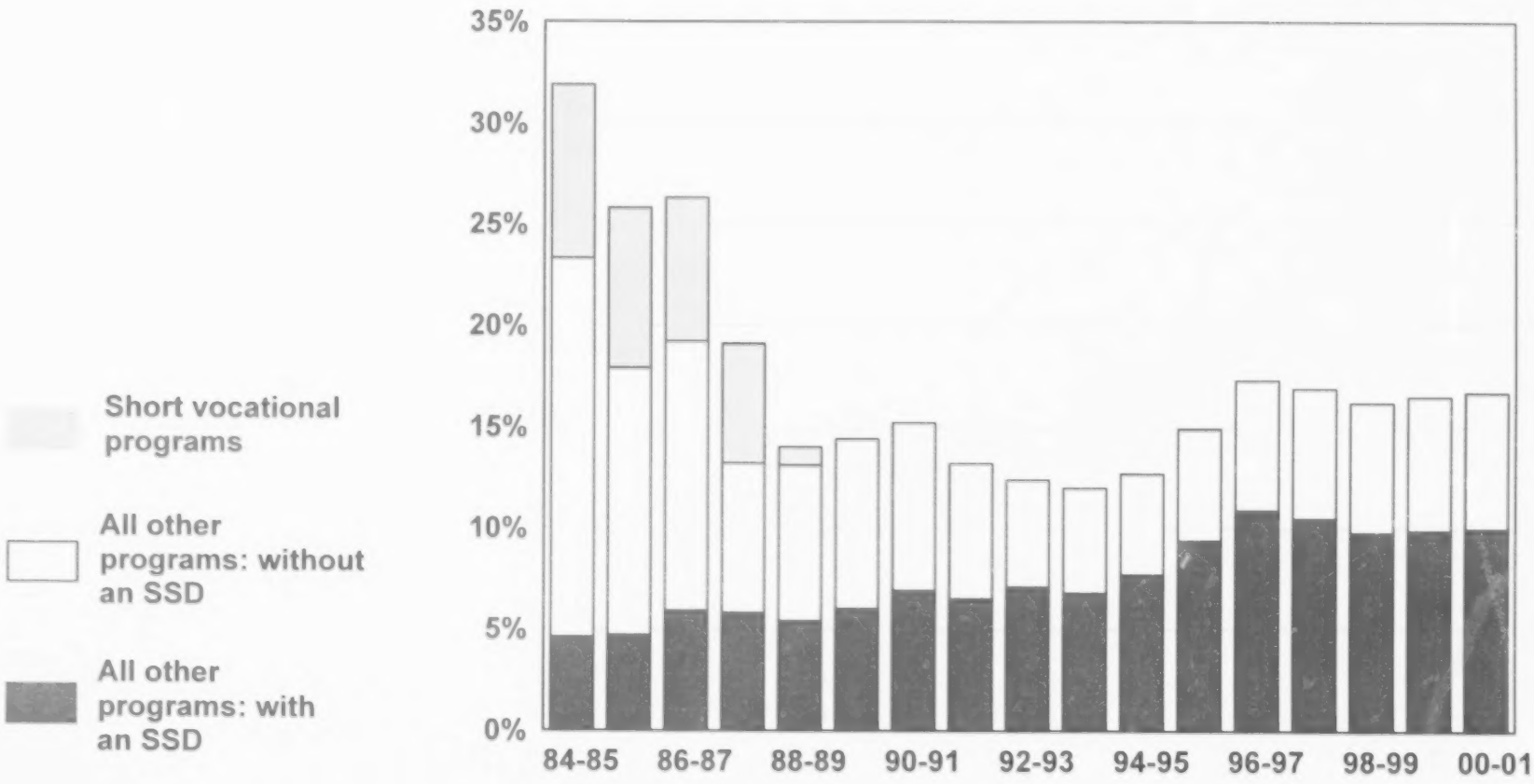
	1984-1985	1994-1995	1997-1998	1998-1999	1999-2000	2000-2001
TOTAL						
Short vocational programs[1]	8.6	–	–	–	–	–
All other programs	**23.3**	**12.8**	**17.0**	**16.2**	**16.5**	**16.7**
Without an SSD	18.7	5.0	6.4	6.4	6.6	6.7
With an SSD	4.6	7.7	10.5	9.8	9.9	10.0
MALE						
Short vocational programs[1]	11.9	–	–	–	–	–
All other programs	**21.8**	**15.0**	**19.8**	**19.1**	**19.7**	**20.4**
Without an SSD	18.2	6.6	8.4	8.6	8.9	9.1
With an SSD	3.6	8.4	11.3	10.5	10.8	11.3
FEMALE						
Short vocational programs[1]	5.2	–	–	–	–	–
All other programs	**24.8**	**10.4**	**14.0**	**13.2**	**13.1**	**12.8**
Without an SSD	19.1	3.4	4.3	4.1	4.2	4.2
With an SSD	5.7	7.0	9.7	9.1	8.9	8.6

–: Not applicable

1. Most young students who enroll in short vocational programs do not have a diploma.

Graph 2.4

Enrollment in vocational education of students under the age of 20, youth and adult sectors combined (%)



2.5 Enrollment in Secondary General Education–Adult Sector

Students who do not obtain a secondary school diploma in the youth sector are not all dropouts. Many of them choose to pursue their studies in the adult sector.

In 2000-2001, 12.7% of students under the age of 20 transferred directly from the youth sector to the adult sector.

In 2000-2001, 12.7% of a school-aged generation under the age of 20 went directly from the youth sector to the adult sector in general education without interrupting their studies. In 1984-1985, the rate was only 1.3%; there has therefore been a tenfold increase. In view of this, the relatively low rate of 5.0% observed in 1992-1993 can be attributed to the changes made in the funding of educational activities for adult students in general education; at the time, this funding was part of a restricted envelope.[1] The increase observed in 1993-1994 (9%) was surely due in part to the fact that the envelope was once again opened for students 16 to 18 years of age.

An analysis of the proportion of students who, after interrupting their studies, return to school in general education in the adult sector reveals that the number of students aged 15 to 19 who returned to the adult sector was higher, until 1986-1987, than the number of students who transferred directly from the youth sector. Since then, however, the latter path has grown in popularity, and in 2000-2001, accounted for more than three quarters of all new enrollments of students under the age of 20.

The adult sector does not limit its services to providing students leaving the youth sector with the opportunity to earn their diploma through an alternative system. Adult education is also open to those who already have a secondary school diploma but wish to add to their education. And even among students without a diploma who enroll in the adult sector, some simply wish to meet a short-term need, such as acquiring the knowledge or skills taught in a specific course.

1. As a result, the school boards had to encourage students to stay in the youth sector (whose envelope is always open), since funding for the adult sector was reduced in 1992-1993.

Table 2.5

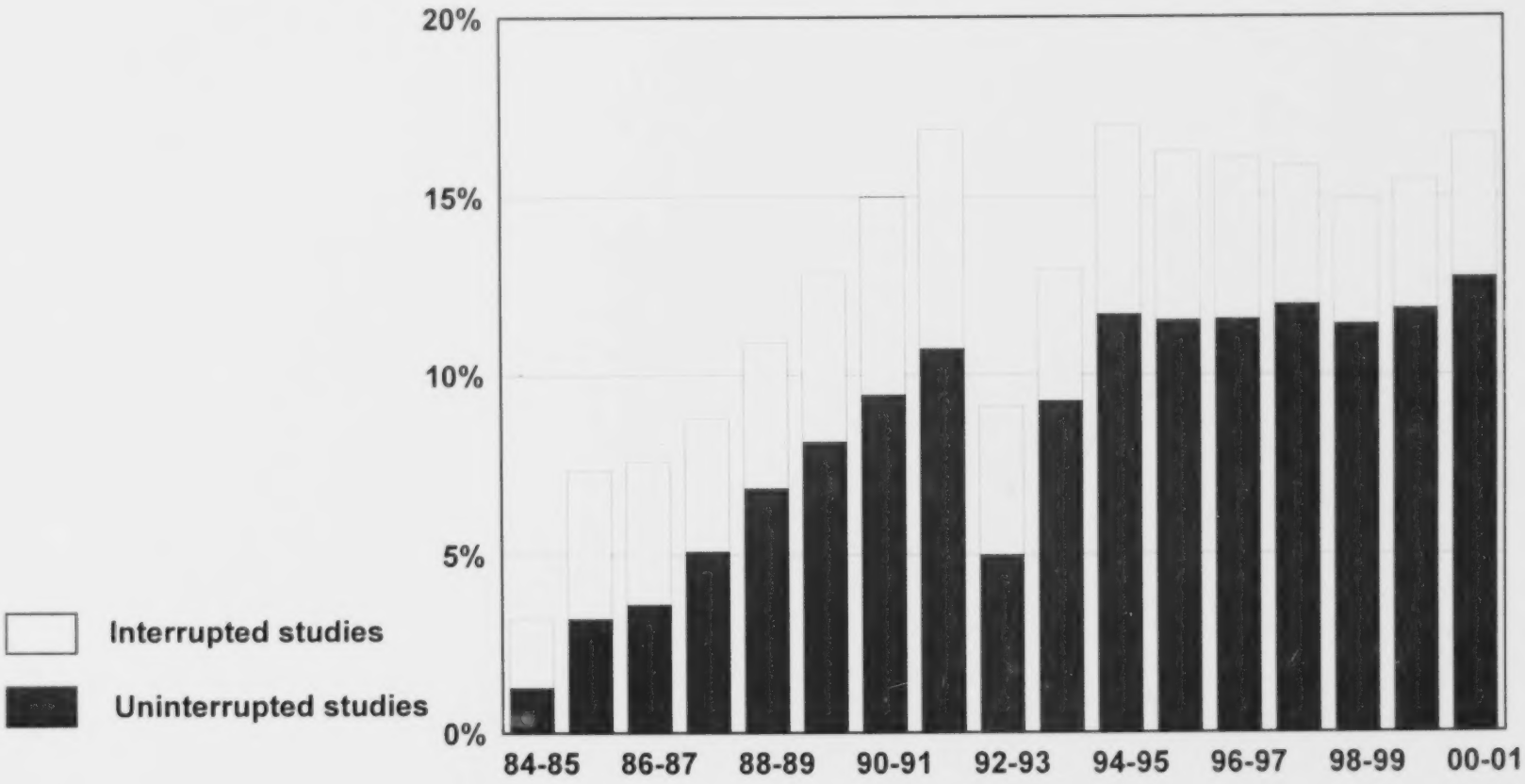
Enrollment in general education in the adult sector of students under the age of 20 without a secondary school diploma, by gender (%)

	1984-1985	1994-1995	1997-1998	1998-1999	1999-2000	2000-2001
Total	**3.2**	**17.0**	**15.9**	**14.9**	**15.5**	**16.7**
Uninterrupted studies[1] (directly from the youth sector)	1.3	11.7	12.0	11.4	11.9	12.7
Interrupted studies	2.0	5.3	3.9	3.5	3.6	4.0
Male	**3.3**	**19.3**	**18.0**	**17.2**	**17.8**	**19.0**
Uninterrupted studies[1] (directly from the youth sector)	1.4	13.6	13.7	13.3	13.7	14.6
Interrupted studies	1.9	5.7	4.3	3.8	4.1	4.4
Female	**3.1**	**14.5**	**13.6**	**12.5**	**13.0**	**14.2**
Uninterrupted studies[1] (directly from the youth sector)	1.1	9.7	10.1	9.4	9.9	10.8
Interrupted studies	2.0	4.8	3.5	3.2	3.1	3.5

1. Uninterrupted studies: Refers to students enrolled in the youth sector on September 30 of the preceding year.

Graph 2.5

Enrollment in general education in the adult sector of students under the age of 20 without a secondary school diploma (%)



2.6 Dropping Out of Secondary School

This section measures both official successful completion (graduation) and school attendance of those who have not yet received a diploma. The dropout rate is defined as the proportion of the population that does not attend school and has not obtained a secondary school diploma.

In 2000, 19.3% of 19-year-olds were without a secondary school diploma and were not attending school. This proportion was 40.6% in 1979.

The proportion of the population with a secondary school diploma is measured, by age.[1] The proportion without a diploma but still in school is also measured.[2] When the two measurements are added together and deducted from 100, the figure obtained is the dropout rate by age.

Graph 2.6 shows the downward trend of the dropout rate since 1979. The increase observed in the 1980s is due to the raising of the pass mark, which made it more difficult to obtain a secondary school diploma (see Section 5.2). Results in recent years have been relatively stable.

The dropout rate in 2000 was 20.8% for 20-year-olds, 22.6% for 25-year-olds and 27.0% for 30-year-olds. Generally speaking, this indicates that the dropout rate in the youth sector is lower than for previous generations. An analysis of the data for a given age reveals that the dropout rate has declined considerably in the past 20 years: the rate for 17-year-olds went from 26.1% in 1979 to 11.4% in 2000, and the rate for 19-year-olds dropped from 40.6% to 19.3% during the same period.

Table 2.6 shows the differences between male and female students and indicates that women have the advantage. In 1979, the gaps were relatively small, but they were somewhat more significant in 2000. For example, for 19-year-olds,

---

1. The diplomas considered here are the Secondary School Diploma (SSD–including the Short Vocational Diploma and the Long Vocational Diploma), the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and certification for on-the-job training in a recycling facility.
2. At either the secondary or college level. It is possible–although less and less in the past few years–for a person without a secondary school diploma to be accepted in college. Persons who enroll in university without a secondary school diploma are not taken into account here.

the dropout rate for men in 2000 was almost almost six tenths of what it was in 1979 (23.9% compared with 43.8%); for women, the rate in 2000 was approximately four tenths of what it was in 1979 (14.4% compared with 37.2%). The situation of women has therefore improved more than that of men; this analysis also holds true for the other ages shown in Table 2.6.

Table 2.6

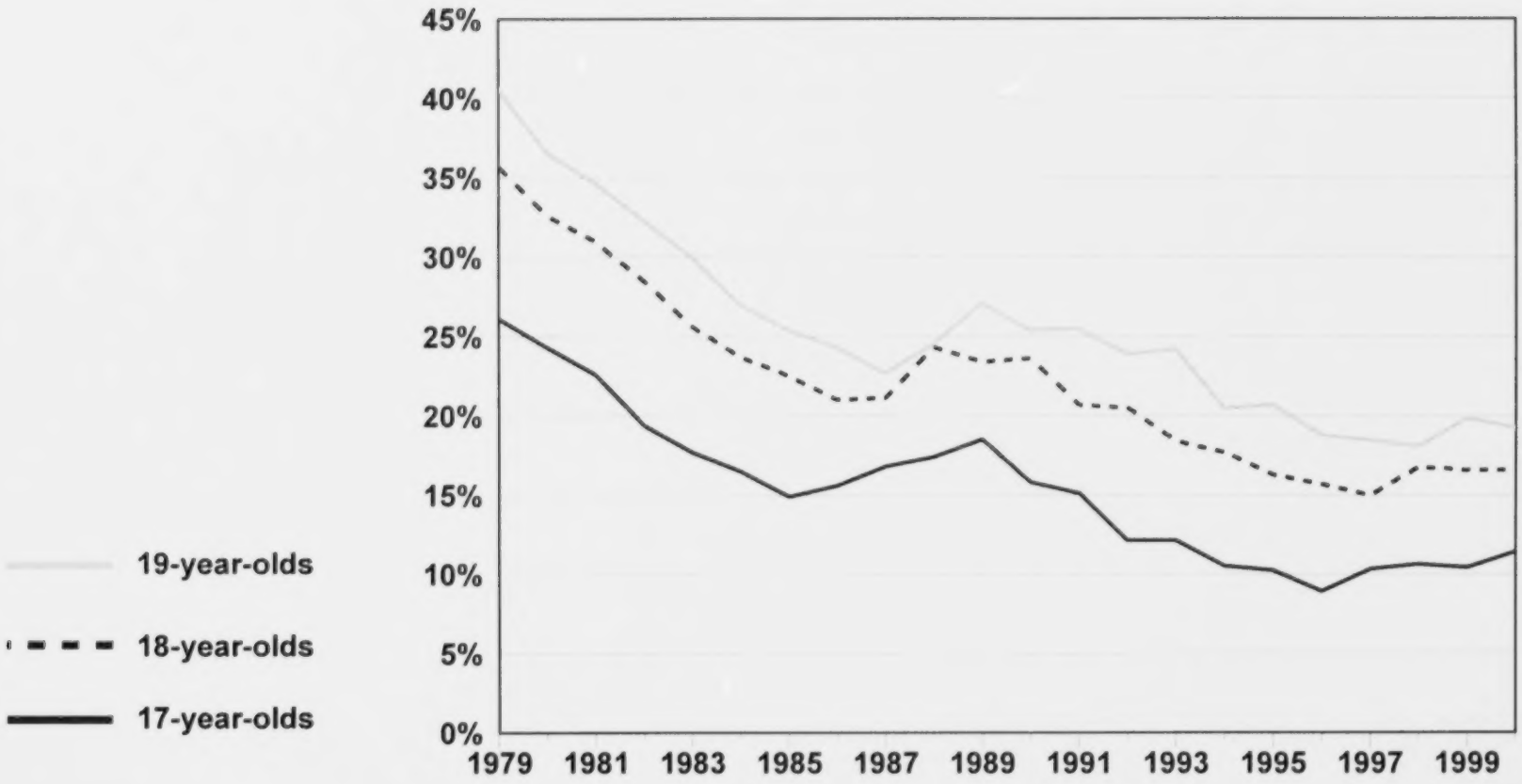
Dropout rate by age and gender (%)

	1979-1980	1984-1985	1989-1990	1994-1995	1999-2000	2000-2001[p]
17-year-olds	**26.1**	**16.5**	**18.5**	**10.5**	**10.4**	**11.4**
Male	27.6	18.8	21.3	12.1	13.3	13.9
Female	24.7	14.0	15.6	8.8	7.3	8.8
18-year-olds	**35.7**	**23.7**	**23.4**	**17.7**	**16.6**	**16.6**
Male	38.0	26.8	27.1	20.6	20.5	21.1
Female	33.2	20.4	19.6	14.6	12.6	11.8
19-year-olds	**40.6**	**27.0**	**27.1**	**20.5**	**19.9**	**19.3**
Male	43.8	30.1	31.1	24.7	24.7	23.9
Female	37.2	23.6	22.9	16.0	14.8	14.4

p: Preliminary figures

Graph 2.6

Dropout rate by age (%)



2.7 Repeating a Year in Elementary School and in Secondary General Education–Youth Sector

Even though the education reform is not yet fully in swing, the objective of reducing grade repetition is already being felt: between 1999-2000 and 2000-2001, the grade repeating rate in elementary school fell from 4.0% to 3.3%, a considerable drop for this indicator.

Since the high in 1990-1991, the proportion of students repeating a year[1] has been dropping steadily, and stood at 5.4% in 2000-2001, the lowest level observed since 1983-1984.

The number of male students who repeat a given year is always higher than the number of female students, regardless of the school year or the grade level. The proportion of male students who repeat a year is often more than one and a half times the proportion of female students in the same situation. There are twice as many repeaters in secondary school as there are in elementary school, and the probability of repeating a year is always significantly higher in Secondary I. This situation is not surprising, considering that all elementary school students, including those with difficulties, are sooner or later promoted to secondary school, if only because they have turned 13 years of age. Moreover, students in individualized paths for learning may be classified for administrative purposes in Secondary I for several years.

The rate of repeating Secondary I (14% in 2000-2001) has stayed high since 1983-1984, when it was already at 13.7%. That was the year in which the effects of raising the secondary school pass mark from 50% to 60% were first felt.[2]

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1. Repeaters are those students who were in the same grade or a higher grade the preceding year. For our purposes, students in Elementary 7 and Secondary VI general education are considered repeaters.
2. The new, higher pass mark was applied to students entering secondary school in 1982-1983. Despite incomplete data, it can be established that, in 1982-1983, the proportion of repeaters was 9.2% in Secondary I. Thereafter, between 1983-1984 and 1984-1985, this proportion jumped from 7.0% to 9.3% in Secondary II. In 1985-1986, this figure increased again in Secondary III, and it continued to rise in subsequent grades until 1987-1988.

In both elementary and secondary school, the first year is always the most difficult to pass.[3] The rate of repeaters tends to dwindle as the grade level increases. Even if the proportion of students who repeat a year is relatively low in the final years of secondary school, that does not necessarily mean that student performance has improved. Indeed, some of these students have reached the age where school attendance is no longer compulsory and they either drop out of school or continue their studies in vocational education or in the adult sector.

Obviously, the cumulative effect of repeating a year is to delay students in their schooling. Thus, in 2000-2001, at the end of the normal six-year period of elementary school, 21.4% of 12-year-olds had not reached secondary school. This proportion was 25.0% for male students and 17.8% for female students.

Grade repeating lengthens the duration of studies, but early school leaving shortens it. While the average duration of secondary studies is 5 years, it is 5.2 years or so for students leaving with a diploma, but only 4.2 years for those leaving without one.[4]

The rates at which the grades at the elementary level are repeated will be affected in the coming years because of changes due to the education reform.

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3. With the education reform, this will no longer be the case for elementary school because repeating will occur only at the end of each of the three two-year cycles.
4. These durations do not take into account the time spent in elementary education, which is generally longer for students who do not finish their secondary studies.

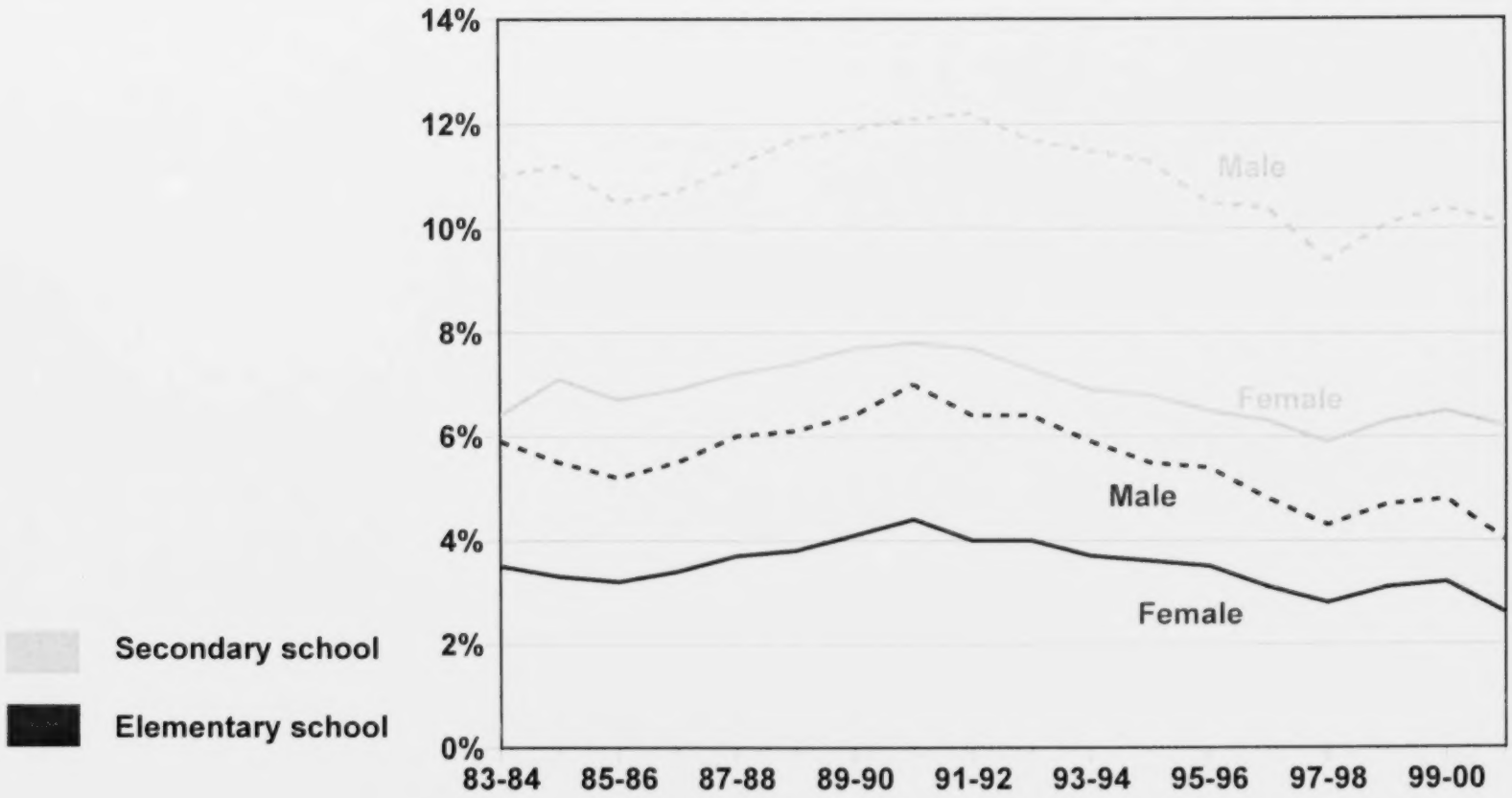
Table 2.7

Proportion of students repeating a year, by level of education and gender (%)

	1983-1984	1990-1991	1997-1998	1998-1999	1999-2000	2000-2001
Elementary school	**4.7**	**5.7**	**3.6**	**3.9**	**4.0**	**3.3**
Male	5.9	7.0	4.3	4.8	4.8	4.0
Female	3.5	4.4	2.8	3.2	3.2	2.6
Secondary school (general education)	**8.7**	**10.0**	**7.7**	**8.2**	**8.5**	**8.2**
Male	11.0	12.1	9.4	10.4	10.4	10.1
Female	6.4	7.8	5.9	6.5	6.5	6.2
Secondary I	**13.7**	**15.7**	**14.1**	**14.5**	**15.1**	**14.0**
Male	16.9	18.6	16.9	18.1	18.1	16.8
Female	10.1	12.4	10.8	11.6	11.6	10.8
Total	**6.5**	**7.6**	**5.4**	**5.8**	**5.9**	**5.4**
Male	8.1	9.2	6.6	7.2	7.2	6.6
Female	4.8	5.9	4.2	4.6	4.6	4.1

Graph 2.7

Proportion of students repeating a year, by level of education and gender (%)



2.8 College Enrollment–Regular Education[1]

In 2000-2001, 58.7% of a generation of young Quebeckers went on to college. This is almost 5 percentage points lower than the rate observed in 1996-1997, just before the drop in the secondary school graduation rate and the tightening of the criteria for admission to CEGEP.[2]

In 2000-2001, college enrollment dropped by 1.0 percentage point to 58.7%, bringing it almost to its level two years earlier.

Enrollment in college (regular education) rose by 22 percentage points between 1975-1976 and 1986-1987 (from 39.3% to 61.5%), followed by a drop of 5 percentage points in 1987-1988. In the six years thereafter, it rose by 10 percentage points, reaching a new high of 66.8% in 1993-1994. Since then, enrollment has dropped by 8.0 percentage points for all young Quebeckers.

Since the late 1970s, changes in college enrollment can be largely explained by trends observed at the secondary level in the youth sector: first a rise in the graduation rate in secondary general education until 1985-1986, followed by a drop in the graduation rate owing to the application of tighter standards at the end of the 1980s, then by a return to an upward trend at a slower pace from 1990-1991 to 1995-1996, ending with a sudden drop in 1996-1997, which was finally stopped in 1998-1999.

There is a close correlation between obtaining a secondary school diploma in general education in the youth sector or before the age of 20 in the adult sector and enrolling in college. This correlation would seem to indicate that the majority of general education graduates, as well as a certain number of vocational education graduates, eventually go on to college.

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1. The figures mentioned here include only students enrolled for the first time in programs leading to a Diploma of College Studies (DCS) in regular education.
2. Since the fall of 1997, students who enroll in CEGEP must not only have their SSD, but must also have successfully completed the following courses: Secondary V language of instruction and second language, Secondary IV history and physical science, and Secondary V mathematics or comparable Secondary IV mathematics.

Over a period of 15 years or so, the gap between men and women going on to college widened steadily. Although rather negligible in the mid-1970s, the difference reached 18.4 percentage points in favour of women in 2000-2001, with only women having regained any ground in the past three years.

College enrollment also varies with the type of education involved. Since 1984-1985, the probability of enrolling in pre-university education has dropped slightly, going from 34.7% to 34.1% in 2000-2001, after reaching a high of 43.8% in 1992-1993. The probability of enrolling in technical education at college declined from 21.6% to 18.1% from 1986-1987 to 1989-1990, to return to 21.3% in 1992-1993 and then settle at 18.7% in 2000-2001.

In recent years, the only regular education programs where enrollment has increased is Explorations. In 1993-1994, 4.9% of students undertook college studies in this type of program; in 2000-2001, the figure was 5.7%, which, out of a total of 58.7%, represents close to one in ten new enrollments.

Table 2.8

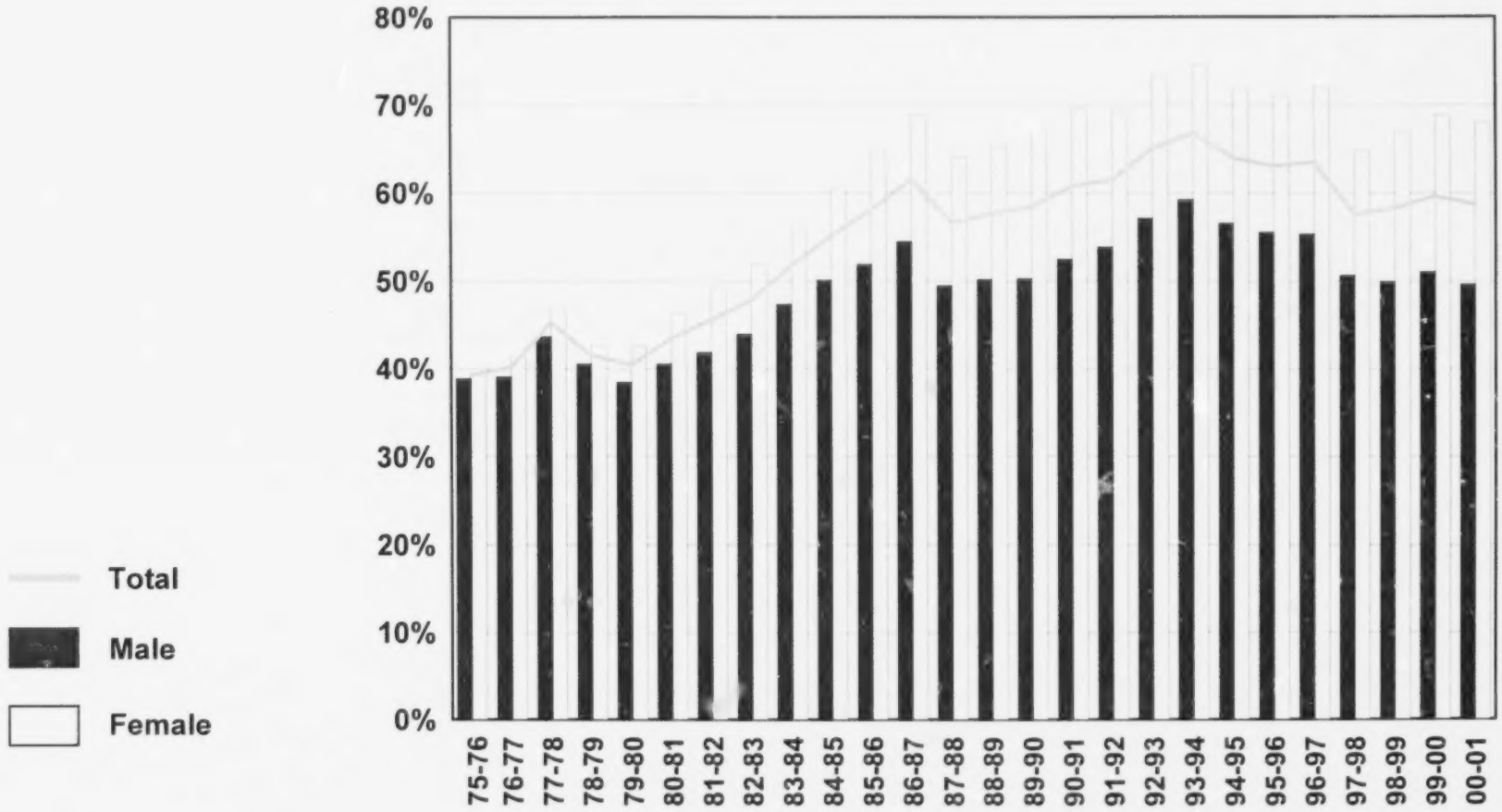
Full- or part-time enrollment in regular education in public or private colleges, by gender and type of education (%)

	1975-1976	1985-1986	1995-1996	1998-1999	1999-2000	2000-2001[e]
Male	**38.9**	**51.9**	**55.6**	**50.0**	**51.1**	**49.7**
Pre-university education	25.4	34.2	31.3	26.7	27.3	26.4
Technical education	13.4	17.6	18.4	17.8	17.6	17.1
Explorations	–	–	5.9	5.6	6.2	6.2
Female	**39.6**	**64.7**	**71.0**	**67.0**	**68.8**	**68.1**
Pre-university education	22.5	41.0	44.6	41.8	42.9	42.4
Technical education	17.1	23.7	20.2	20.3	20.9	20.6
Explorations	–	–	6.1	4.8	5.0	5.2
Total	**39.3**	**58.1**	**63.1**	**58.3**	**59.7**	**58.7**
Pre-university education	24.0	37.6	37.8	34.0	34.9	34.2
Technical education	15.3	20.6	19.3	19.0	19.2	18.8
Explorations	–	–	6.0	5.2	5.6	5.7

e: Estimates
–: Not applicable

Graph 2.8

Full- or part-time enrollment in regular education in private or public colleges, by gender (%)



2.9 Going Directly From College to University

In 1999-2000, 78.6% of pre-university education graduates and 21.5% of technical education graduates went on to university in the year following their graduation from college.

The main objective of college pre-university education is to prepare students for university. On March 31, 2001, 78.6% of the class of 1999-2000 aged 24 or under with a diploma in a pre-university program[1] were enrolled in university. This proportion is lower than the 81.4% observed on March 31, 2000, among 1998-1999 graduates. More than 79.6% of women graduates of pre-university education were enrolled in university in 2001, which is higher than the percentage of men in the same situation (77.0%).

The proportion of graduates of pre-university education going on to university without interrupting their studies has decreased in comparison with the rates observed in 1999 and 2000. In fact, the proportion of pre-university graduates who attend university the year following their Diploma of College Studies (DCS) declined from 84.0% in 1997-1998 to 81.4% in 1998-1999 and to 78.6% in 1999-2000. The rate of university enrollment for students aged 24 or under with a diploma in a pre-university program has remained between 78.6% and 84.0% since 1994.

On March 31, 2001, 21.5% of students aged 24 or under who earned a diploma in a technical program in 1999-2000 were enrolled in university the following year. These results represent the highest proportion since 1984.

More men aged 24 or under with a diploma in a technical program have been enrolling in university than their female counterparts since 1984.

1. This refers to students who, between the months of September and August of a given school year, were enrolled in the last year of a college program and successfully completed their studies.

Table 2.9

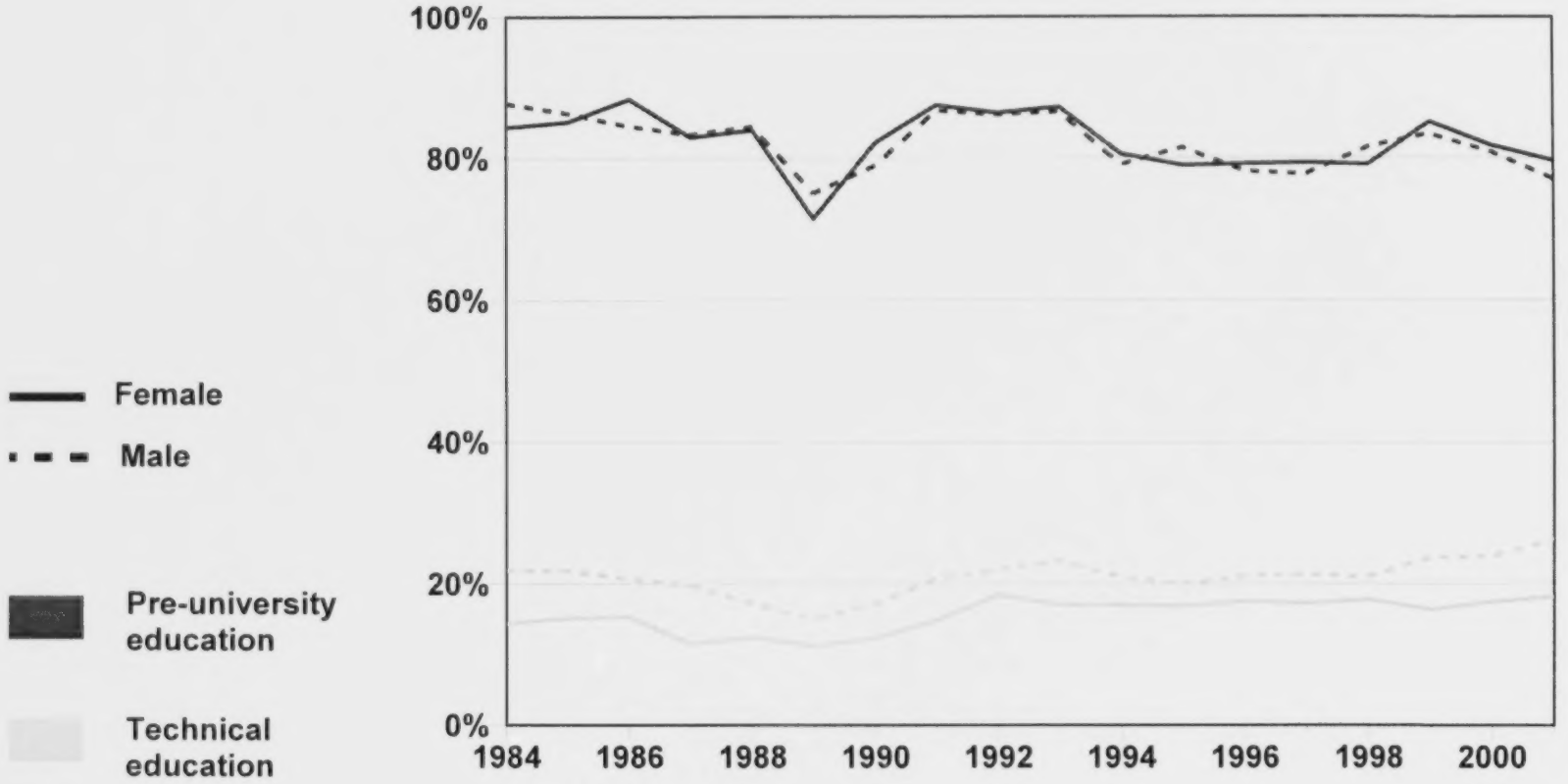
Proportion of college graduates (24 years old or under) going on to university without interrupting their studies as of March 31 following their year of graduation, by type of education and gender (%)

	1984	1992	1998	1999	2000	2001
Pre-university education	**86.0**	**86.2**	**80.0**	**84.0**[1]	**81.4**[1]	**78.6**
Male	87.7	86.1	81.5	85.1[1]	80.8[1]	77.0
Female	84.3	86.3	79.0	83.4[1]	81.7[1]	79.6
Technical education	**17.4**	**19.8**	**19.0**	**19.2**[1]	**20.0**	**21.5**
Male	21.9	22.0	21.0	23.7[1]	23.9	26.3
Female	14.4	18.5	17.8[1]	16.4[1]	17.5[1]	18.2

1. Revised data

Graph 2.9

Proportion of college graduates (24 years old and under) going on to university without interrupting their studies, by type of education and gender (%)



2.10 University Enrollment

This section concerns only enrollment in programs leading to a university degree at the bachelor's, master's or doctoral level. Enrollment in certificate programs and nonprogram studies are not measured here.

In 2000-2001, the proportion of students enrolling in university studies leading to a bachelor's degree stood, after a slow period, at 35.9%, the same level as that observed five years earlier.

In 1992-1993, the proportion of a generation enrolled for the first time in programs leading to a bachelor's degree increased by one third over an 8-year period, climbing to 39.7%, from 30.1% in 1984-1985. Since 1992-1993, there has been a decline of 3.8 percentage points in enrollment in bachelor's programs, and the rate was 35.9% in 2000-2001. A similar decline was observed in enrollment in college pre-university programs after 1992-1993 (see Section 2.8).

Over this 16-year period, only women showed veritable gains in enrollment in bachelor's programs: an increase of 11.7 percentage points brought them to 43.0% in 2000-2001, whereas men (29.2%) were barely above the level observed in 1984-1985. The gap between the sexes was 13.8 percentage points, whereas it had been 2.3 percentage points 16 years earlier.

With respect to master's programs, enrollment rose for a third time to 9.7% after dropping for the first time in 1997-1998. Here too, gains were more favourable for women, whose enrollment rate was 9.9% in 2000-2001, compared with 9.6% for men. In 1984-1985, the difference was 1.5 percentage points in favour of men. At the master's level, women began showing definitive gains over men in 1993-1994. The overall increase in enrollment in master's programs (2.9 percentage points) between 1984-1985 and 2000-2001 was relatively greater than that observed at the bachelor's level, where there has in fact been a decrease in enrollment over the past 8 years.

The growing interest in doctoral studies is significant even though it applies to only a small portion of the population. Enrollment rose from 1.1% in 1984-1985 to 2.0% in 2000-2001. Men continue to enroll in doctoral studies in slightly greater numbers (2.2%) than women (1.8%), but the number of women enrolling at this level has increased more rapidly in the past 16 years.

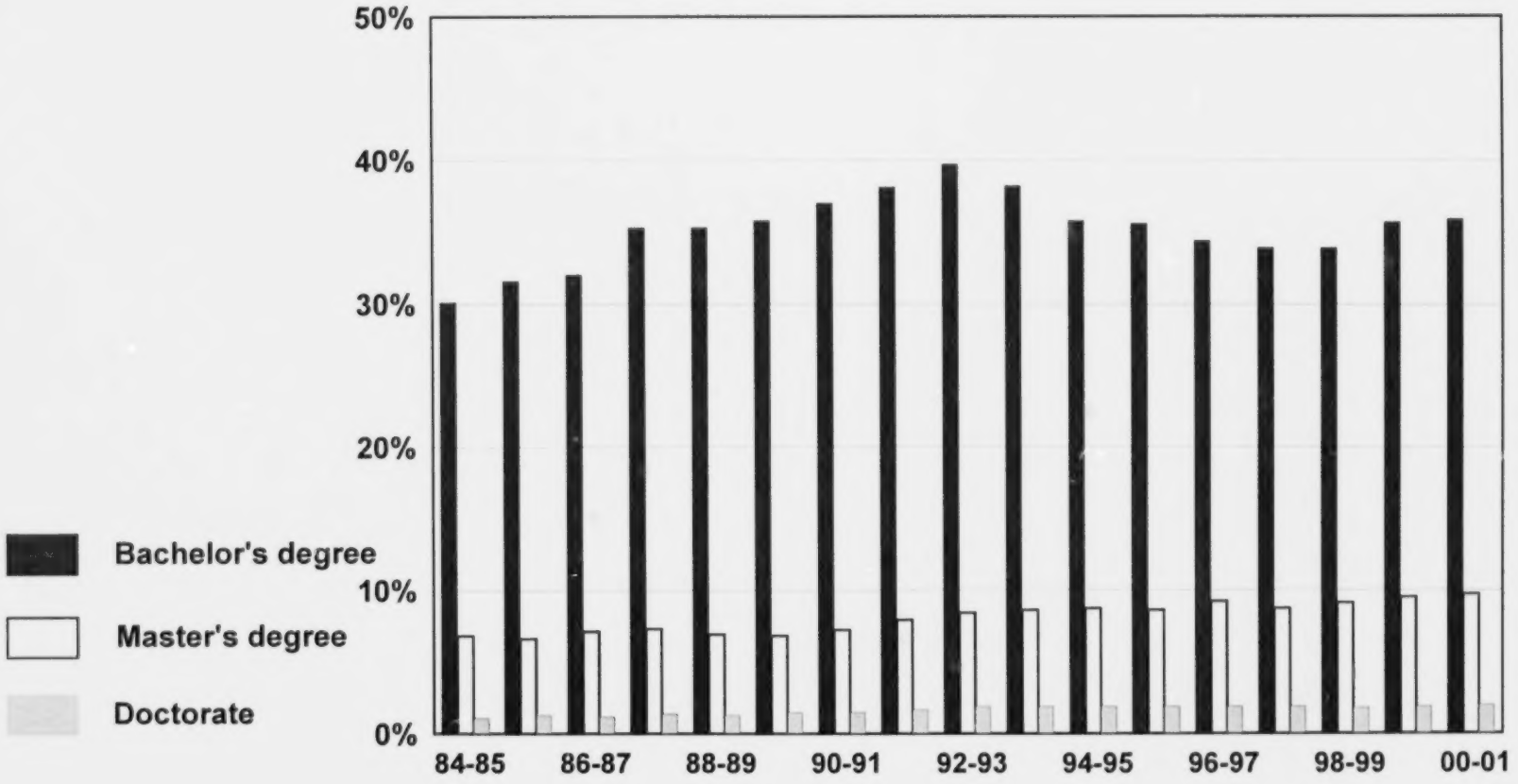
Table 2.10

Enrollment in programs leading to a university degree, by gender (%)

	1984-1985	1987-1988	1992-1993	1997-1998	1999-2000	2000-2001
Bachelor's programs						
Male	29.0	31.2	34.8	28.9	29.6	29.2
Female	31.3	39.5	44.9	39.1	42.2	43.0
Total	**30.1**	**35.3**	**39.7**	**33.9**	**35.7**	**35.9**
Master's programs						
Male	7.5	7.5	8.5	8.4	9.2	9.6
Female	6.0	7.2	8.3	8.9	9.8	9.9
Total	**6.8**	**7.3**	**8.4**	**8.7**	**9.5**	**9.7**
Doctoral programs						
Male	1.4	1.7	2.3	1.9	2.1	2.2
Female	0.8	1.0	1.4	1.8	1.8	1.8
Total	**1.1**	**1.4**	**1.9**	**1.9**	**1.9**	**2.0**

Graph 2.10

Enrollment in a program leading to a university degree (%)



2.11 Training of Researchers

Students enrolled in a program leading to a doctorate are the most likely to go into university research. In the fall of 2000, these students numbered 8 653. From 1990 to 2000, their number increased by 23%, despite a 6.6% decrease between 1997 and 2000.

In the fall of 2000, 31% of doctoral students were enrolled in social sciences, 16% in applied sciences, 16% in pure sciences, and 13% in health sciences.

Enrollment in doctoral programs is mainly concentrated in social sciences, pure and applied sciences, and health sciences. In 2000, 31% of doctoral candidates were in social sciences, 16% in applied sciences, 16% in pure sciences, and 13% in health sciences.

Men accounted for most of the students enrolled in a program leading to a doctorate (54% in the fall of 2000, compared with 46% for the women). In 1990, the percentages were 65% and 35%, respectively. From 1990 to 2000, the increase in the number of women enrolled in doctoral programs (60%) was much greater than it was for men (3%).

In 2000, 80% of the men in doctoral programs were enrolled in social sciences (26%), applied sciences (23%), pure sciences (19%) and health sciences (12%). The number of men enrolled in business administration has increased the most since 1990, that is, by 102%.[1]

The distribution of enrollments in doctoral programs differs for women and men. In the fall of 2000, 37% of the female students were in social sciences, 14% were in health sciences, 11% were in pure sciences, 10% were in literature and 9% were in education. The largest annual increases in female enrollment since 1990 have been in the fields of law (200%), the arts (183%), applied sciences (108%), health sciences (95%), and business administration (75%).[2]

---

1. Male enrollment in interdisciplinary studies, which went from 39 in 1990 to 52 in 2000, is not taken into consideration.
2. Female enrollment in interdisciplinary studies, which went from 21 in 1990 to 41 in 2000, is not taken into consideration.

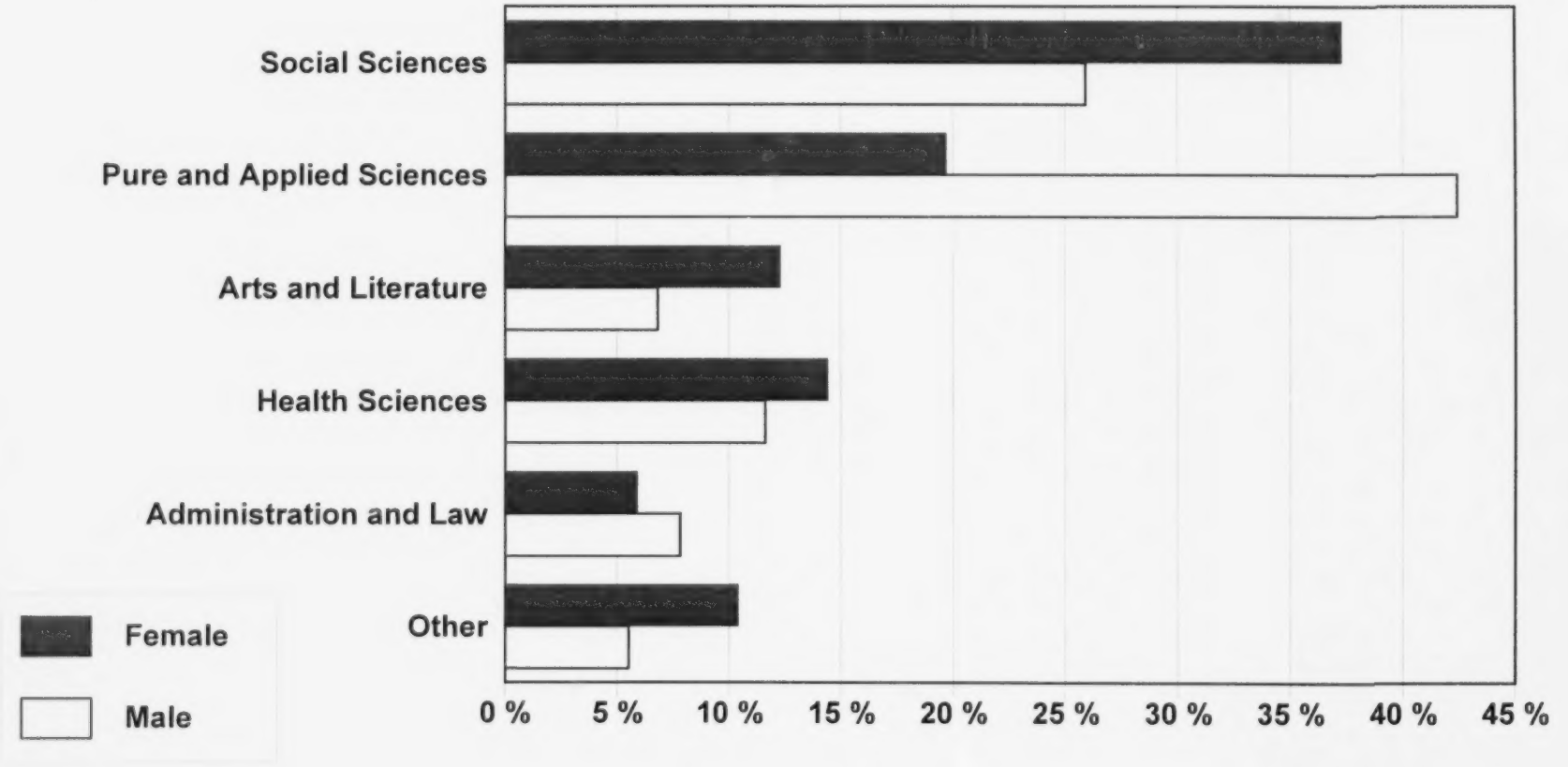
Table 2.11

Enrollment in doctoral programs, by field of study, 1990 to 2000 (fall term)

	1990	1993	1995	1998	1999	2000
Arts	96	101	120	175	186	200
Literature	654	708	770	690	665	607
Business administration	258	334	391	482	463	494
Law	58	79	103	107	108	109
Education	549	547	587	594	560	558
Social sciences	2 168	2 559	2 730	2 862	2 746	2 693
Pure sciences	1 229	1 516	1 506	1 365	1 347	1 351
Applied sciences	1 276	1 707	1 715	1 433	1 446	1 417
Health sciences	662	798	958	1 021	1 041	1 114
Interdisciplinary studies	60	101	126	105	96	93
Not applicable	27	42	171	22	21	17
Total	**7 037**	**8 492**	**9 177**	**8 856**	**8 679**	**8 653**

Graph 2.11

Distribution of enrollments in doctoral programs, by gender and field of study, fall 2000



3.1 Success in Secondary Cycle Two of General Education–Adult Sector[1]

Of the students in general education in the adult sector who left secondary school in 1999-2000, 14.9% obtained a diploma. If only students in Cycle Two are considered, the proportion more than triples, to 45.3%. Of the various instructional services[2] only Secondary Cycle Two normally leads to a diploma. Figures for new enrollments broken down according to instructional service are available as of 1988-1989 only. These figures show that the proportion of graduates was 23.2% for students leaving Secondary Cycle Two; the rate has therefore doubled since that time.

For students under the age of 20 who were enrolled in Secondary Cycle Two in the adult sector in 1999-2000, the probability of obtaining a diploma was 53.3%.

Although the earning of a diploma is not the most appropriate criterion for measuring success in the other instructional services, it can nevertheless be observed that the proportion of graduates is on the rise among students in all the instructional services in the adult sector. Since 1980-1981, this proportion has risen from 11.5% to 14.9%. This increase is due primarily to the fact that fewer students are dropping out of instructional services that do not lead directly to a diploma. Instead of quitting school, students pursue their studies in another instructional service and thus enter Cycle Two and eventually earn a secondary school diploma.

Among students leaving school, the proportion who hold a diploma is higher for those under the age of 20 than for all ages combined. Thus, in Secondary Cycle Two, 53.3% of the students leaving before the age of 20 did so with a

1. Success in general education is measured here by the proportion of new holders of a diploma among all general education students leaving secondary school with or without a diploma. The diplomas counted are those obtained during or at the end of the last year of enrollment or the following year, if the student has not re-enrolled. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.
2. The following instructional services are offered, or were offered in the past, in general education in the adult sector: Integration into Community Life Program (ICLP), sociovocational integration services, pre-employment training activities (PTA), literacy services, francization services, adults educated in the youth sector, study skills and career planning, preparatory services for secondary education, Secondary Cycle One education services, Secondary Cycle Two education services, vocational training preparation services, and preparatory services for postsecondary education.

diploma; progress has been considerable in this respect, because the corresponding proportion for 1988-1989 was 36.3%. With respect to instructional services as a whole, the proportion of those under the age of 20 leaving with a diploma went from 22.0% to 25.5% between 1980-1981 and 1999-2000.

In 1980-1981, the graduation rate was slightly higher for male students than for female students, but the situation has since reversed. In 1999-2000, the graduation rate for female students exceeded that of male students by 3.4 percentage points, and this difference was 10.0 percentage points for those under 20 years of age.

Table 3.1

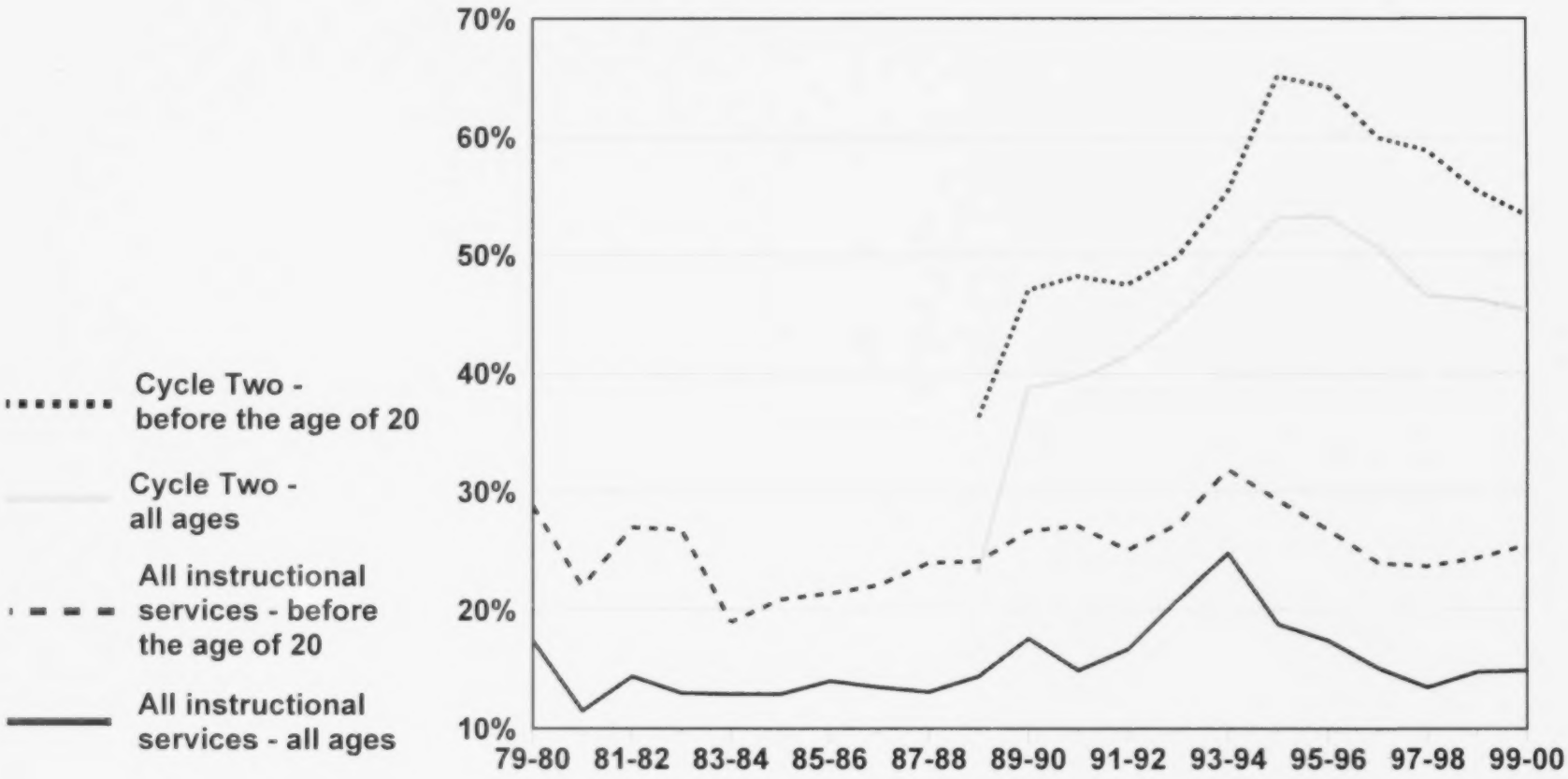
Proportion of students leaving general education in the adult sector with a diploma,[1] by gender, instructional service, age and last year of enrollment (%)

	1980-1981	1988-1989	1990-1991	1995-1996	1998-1999	1999-2000[e]
Male						
Secondary Cycle Two	N/A	22.7	37.3	50.2	43.7	42.6
Under the age of 20	N/A	36.2	45.4	60.9	52.6	50.1
All instructional services	13.1	13.2	13.1	14.9	13.1	13.2
Under the age of 20	23.1	22.4	23.8	22.4	21.5	21.5
Female						
Secondary Cycle Two	N/A	23.6	41.3	55.9	48.5	48.3
Under the age of 20	N/A	36.4	50.8	67.5	58.8	57.1
All instructional services	10.3	15.3	16.5	20.0	16.5	16.6
Under the age of 20	20.8	25.8	30.9	33.2	30.3	31.5
Total						
Secondary Cycle Two	N/A	23.2	39.6	53.2	46.2	45.3
Under the age of 20	N/A	36.3	48.2	64.2	55.4	53.3
All instructional services	11.5	14.4	14.9	17.4	14.8	14.9
Under the age of 20	22.0	24.1	27.1	26.8	24.4	25.5

N/A: Data not available
e: Estimates
1. All secondary school diplomas are taken into account.

Graph 3.1

Proportion of students leaving general education in the adult sector with a diploma, by last year of enrollment (%)



3.2 Success in Secondary Vocational Education[1]

Of the students in vocational education[2] who left secondary school in 1999-2000, 55.5% obtained a diploma. If only those students truly considered to be working toward a diploma, that is, full-time students,[3] are considered, the proportion of graduates climbs to 81.5%, slightly higher than the usual level.

In 1999-2000, the success rate for female students in programs leading to a DVS was higher than for male students (69.6% compared with 61.1%) for the first time in a decade.

Since the beginning of the vocational education reform in 1987-1988, the percentage of graduates has increased appreciably. For example, at the end of 1999-2000, the proportion of students graduating from programs leading to a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) was 64.6%, compared with 43.4% in 1988-1989. The success rate for long vocational programs has not increased much since the mid-1980s, but data on long vocational programs concerned only the youth sector. If only full-time students are considered,[3] progress is more evident. As noted earlier, the proportion of graduates among students enrolled for the last time in 1998-1999 was 81.5%, compared with 56.3% for students enrolled for the last time in 1980-1981.

However, if we consider all school leavers without taking into account the sector or whether enrollment is full-time or part-time, the proportion of diplomas has also increased since the early 1980s. Thus, the success rate of persons enrolled in vocational education for the last time in 1980-1981 was 46.6%. This overall proportion rose to 55.5% in 1999-2000.

There was a significant decline in the number of new enrollments in vocational education during the 1980s (see Section 2.4). Students are now required to spend more time in general education before being admitted into vocational

1. Success in vocational education is measured here by the proportion of new holders of a diploma among all vocational education students leaving secondary school with or without a diploma. The diplomas counted are those obtained during or at the end of the last year of enrollment or the following year, if the student has not re-enrolled. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.
2. Because school boards are not required to transmit vocational education enrollment data when a diploma, attestation or certificate is not awarded, the devisor for the success rate may be incomplete.
3. Students enrolled for 270 course hours or more per year are considered full-time.

education. General education graduates still have higher success rates in vocational education than students who do not already have a diploma. This explains in large part the higher success rate observed for all school leavers in recent years.

The differences in the results of male and female students have varied to different degrees over the years. In 1999-2000, there was a reversal in trends relating to graduation from programs leading to a DVS and the success rate of female students surpassed that of male students (69.6% compared with 61.1%). In the past, the success rate for male students was 2 to 10 percentage points higher than for female students. However, when only the overall graduation rate by gender is considered, the success rate for female students has been higher for a long time. In 1985-1986, the proportion of female students graduating from vocational education was 36.2%, compared with 28.7% for male students; in 1999-2000, the proportions were 63.3% and 49.6%, respectively.

Table 3.2

Proportion of students leaving secondary vocational education with a diploma,[1] by gender, category and last year of enrollment (%)

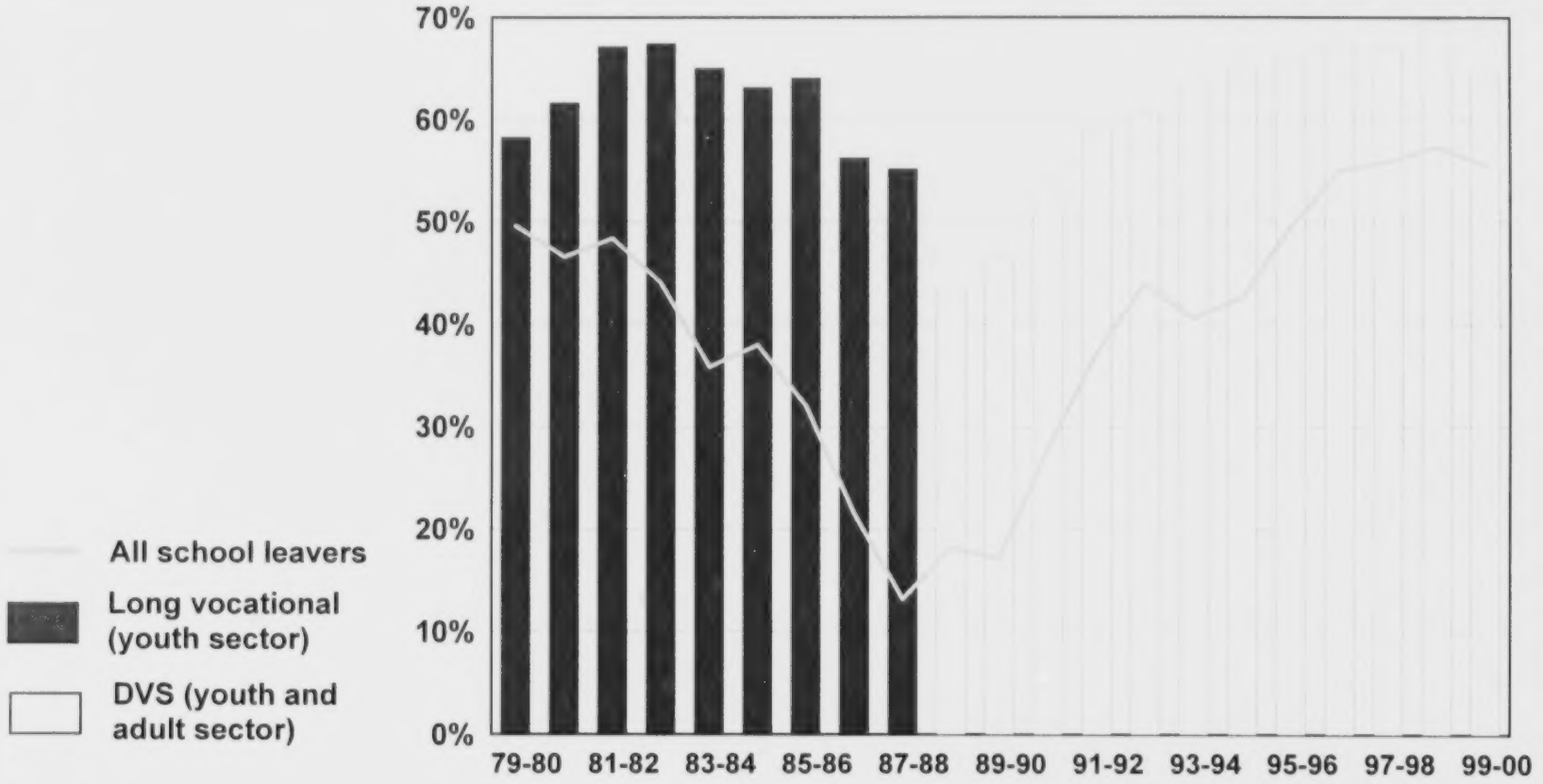
	1980-1981	1985-1986	1990-1991	1995-1996	1998-1999	1999-2000[e]
Male						
Long vocational or DVS[2]	57.1	58.3	60.0	67.6	70.5	61.1
Full-time[3]	51.8	51.4	81.0	79.5	79.7	81.1
All male school leavers	48.3	28.7	21.6	46.1	53.6	49.6
Female						
Long vocational or DVS[2]	65.5	69.5	50.2	64.4	69.0	69.6
Full-time[3]	61.3	62.0	80.0	78.3	79.9	82.0
All female school leavers	45.2	36.2	39.3	53.9	62.3	63.3
Total						
Long vocational or DVS[2]	61.7	64.1	54.3	66.1	69.8	64.6
Full-time[3]	56.3	56.6	80.5	78.9	79.8	81.5
All school leavers	46.6	32.1	27.9	49.5	57.3	55.5

e: Estimates

1. All secondary school diplomas are taken into account.
2. Figures for 1980-1981 and 1985-1986 cover enrollment in long vocational programs in the youth sector. After 1988-1989, figures take into account DVSs in the youth and adult sectors.
3. Students enrolled for 270 course hours or more per year are considered full-time.

Graph 3.2

Proportion of students leaving secondary vocational education with a diploma, by last year of enrollement (%)



3.3 Success in Pre-University Programs in Regular College Education[1]

Of the students in pre-university programs who left regular college education at the end of 1999-2000, two thirds earned a Diploma of College Studies (DCS). In the past two decades, this graduation rate has fluctuated between 63.9% and 71.6%. Before the drop of 2.4 percentage points in 1999-2000, a significant increase in success rates had been observed: from 64.7% in 1995-1996 to 69.8% in 1998-1999. The stricter admission criteria that came into effect in the fall of 1997 (see Section 2.8) largely explain this increase, because fewer of the students who are most likely to quit their studies are able to enroll in college.

The proportion of students in pre-university education graduating with a DCS increased by 5 percentage points from 1995-1996 to 1998-1999. Half of this increase disappeared in 1999-2000, when the success rate stood at 67.5%.

Women tend to do better than men in pre-university programs and the gap in their favour has grown over the years. In 1980-1981, the proportion of women finishing their pre-university education with a DCS surpassed that of men by 3.9 percentage points. In 1999-2000, the gap was 12.8 percentage points in favour of women (it was 10.8 percentage points in 1995-1996). This phenomenon, coupled with the fact that more women than men enroll in college (see Section 2.8), explains the difference between the sexes with respect to graduation rates (see Section 5.6).

When the type of program in which students begin their college education is taken into account, the success rate is slightly above average for those who began their studies in pre-university programs: in 1999-2000, it was 69.5%. Moreover, students arriving from technical programs had markedly lower success rates (52.6% in 1993-1994). Given that since 1994-1995 some graduates have also begun in Explorations programs (introduced the previous year), the success rate remained lower for pre-university program students who came from another type of program. This rate only cleared the 50% mark in 1998-1999, when it reached 52.1% in 1999-2000.

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1. Success in pre-university programs in regular college education is measured here by the proportion of new holders of a DCS among all students in pre-university programs in regular college education who leave programs leading to a DCS, with or without a diploma. DCSs of all types are counted, whether they were obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a program leading to a DCS. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.

In theory, it takes two years to obtain a DCS in a pre-university program, but very few students do so within this time frame. In fact, the rate for completion within two years (that is, the time elapsed from initial enrollment in a program leading to a DCS) reached 41.4%, in 1999-2000 for students who began their studies in a pre-university program. This rate reached its lowest point, 35%, in 1985-1986. If all pre-university program graduates are considered, regardless of the program in which they were initially enrolled, obviously their success rate for two-year completion will be slightly lower because students who transfer from other programs spend more time in school. Generally, almost all (98%) of the pre-university DCSs are obtained within five years after the start of college studies; in 1999-2000, the success rate was 68.1%.

Table 3.3

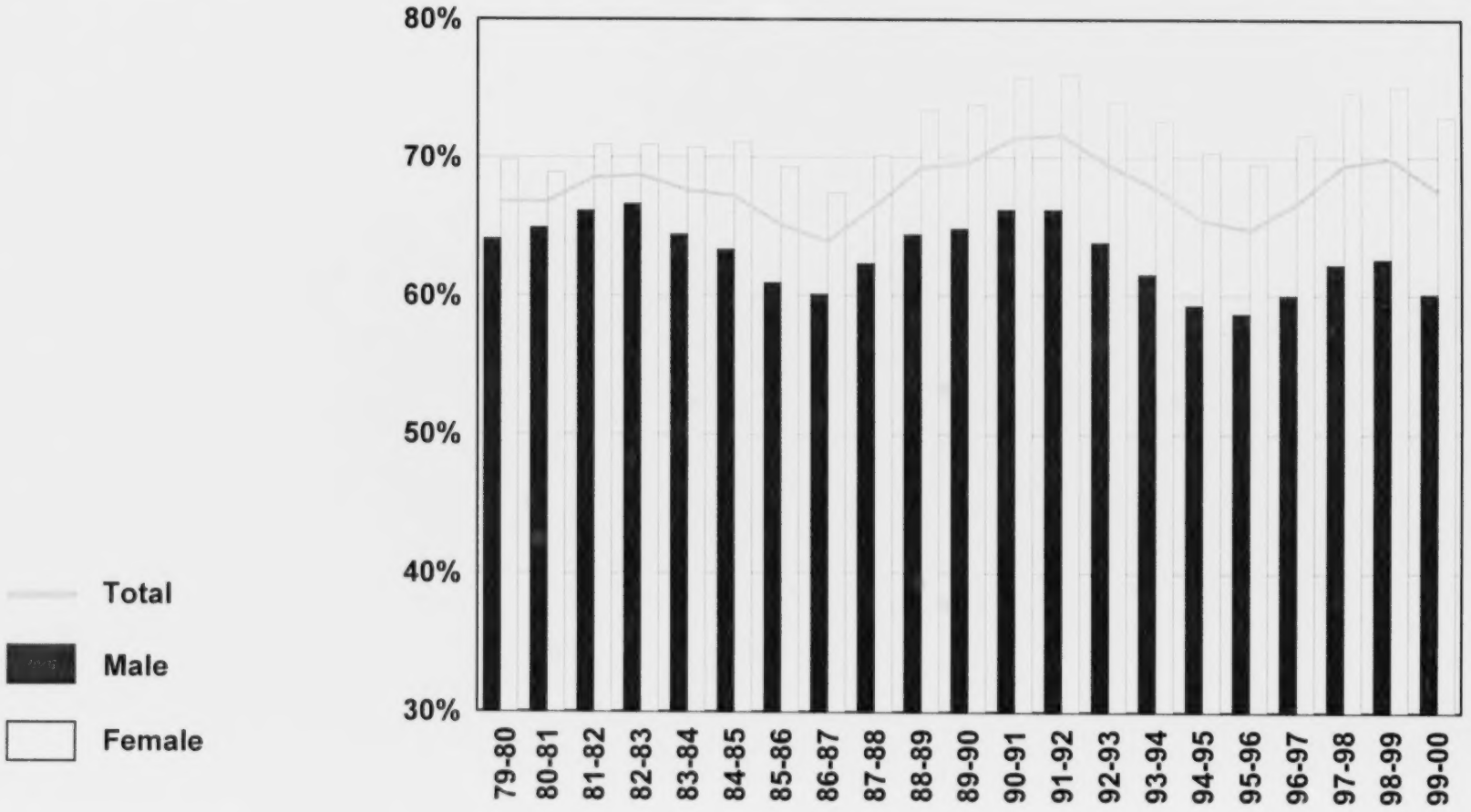
Proportion of students leaving a pre-university program with a DCS, by last year of enrollment in regular college education, gender, type of initial program, and time elapsed[1] since initial enrollment (%)

	1980-1981	1985-1986	1990-1991	1995-1996	1998-1999	1999-2000[e]
Male and female						
Same type of initial program						
2 years or less[1]	N/A	36.3	40.5	36.6	41.6	41.4
5 years or less[1]	N/A	64.3	70.8	65.2	70.6	68.1
All durations	N/A	65.3	72.0	66.5	71.9	69.5
Other type of initial program[2]						
All durations	N/A	63.8	61.3	47.5[2]	54.2[2]	52.1[2]
All types of initial programs–all durations						
Male and female	66.8	65.1	71.4	64.7	69.9	67.5
Male	64.9	60.9	66.2	58.7	62.6	60.1
Female	68.8	69.3	75.8	69.5	75.2	72.9

e: Estimates
N/A: Data not available
1. The time elapsed since initial enrollment is not necessarily the same as the duration of studies, because the studies may have been interrupted at some point.
2. Until 1993-1994, this category referred to students who began their studies in a technical program. As of 1994-1995, this category also includes students who leave pre-university education (with or without a diploma) after having begun in an Explorations program the previous year.

Graph 3.3

Proportion of students leaving a pre-university program with a DCS, by gender and last year of enrollment in regular college education (%)



3.4 Success in Technical Programs in Regular College Education[1]

Of the students in regular college education who left technical programs at the end of 1999-2000, 54.9% earned a Diploma of College Studies (DCS). In the past two decades, this graduation rate has fluctuated between 52.7% and 60.7%.

Of the students in technical programs who left school in 1999-2000, 54.9% earned a DCS; this percentage has been unchanged for the past three years.

In this area, women still do better than men, with the difference being at its highest, 17.1%, in 1997-1998. In 1999-2000, the gap narrowed by 3 percentage points; the success rate for women was 61.9% compared with 47.4% for men, for a gap of 14.2 percentage points in favour of women. This phenomenon, coupled with the fact that more women than men enroll in college (see Section 2.8), explains the difference between the sexes with respect to graduation rates (see Section 5.6).

When the type of program in which students begin their college education is taken into account, for the first time in 1999-2000, the success rate was as high as the average for those who began their studies in technical programs (54.9% in 1999-2000). Moreover, students who began in pre-university programs and who transferred to technical programs had markedly higher success rates (more than 60% until 1993-1994). Since 1994-1995, the success rates of students who began their college studies in programs other than technical programs were brought down by the rates of students in Explorations programs (introduced in 1993-1994). Students who began elsewhere than in technical programs accounted for almost one quarter of these graduates; they accounted for more than one third of technical DCSs in 1999-2000.

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1. Success in technical programs in regular college education is measured here by the proportion of new holders of a DCS among all students in technical programs in regular college education who leave programs leading to a DCS, with or without a diploma. DCSs of all types are counted, whether they were obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a program leading to a DCS. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.

In theory, it takes three years to earn a DCS in a technical program, but very few students do so within this time frame. In fact, the rate for completion within three years (that is, the time elapsed from initial enrollment in a program leading to a DCS) was 30.3% in 1999-2000 for all students who began in technical programs. If all technical education graduates are considered, regardless of the program in which they were initially enrolled, obviously their success rate for three-year completion will be slightly lower because students who transfer spend more time in school. Generally, a higher proportion (85% to 90%) of technical DCSs are obtained within five years after the start of college studies; in 1999-2000, the success rate was 50.2%.

While students who began their college studies directly in technical programs can obtain their DCS more quickly, it seems that the students who come from pre-university programs are more likely to obtain their DCS if the time elapsed since the beginning of their studies is not taken into account.

Table 3.4

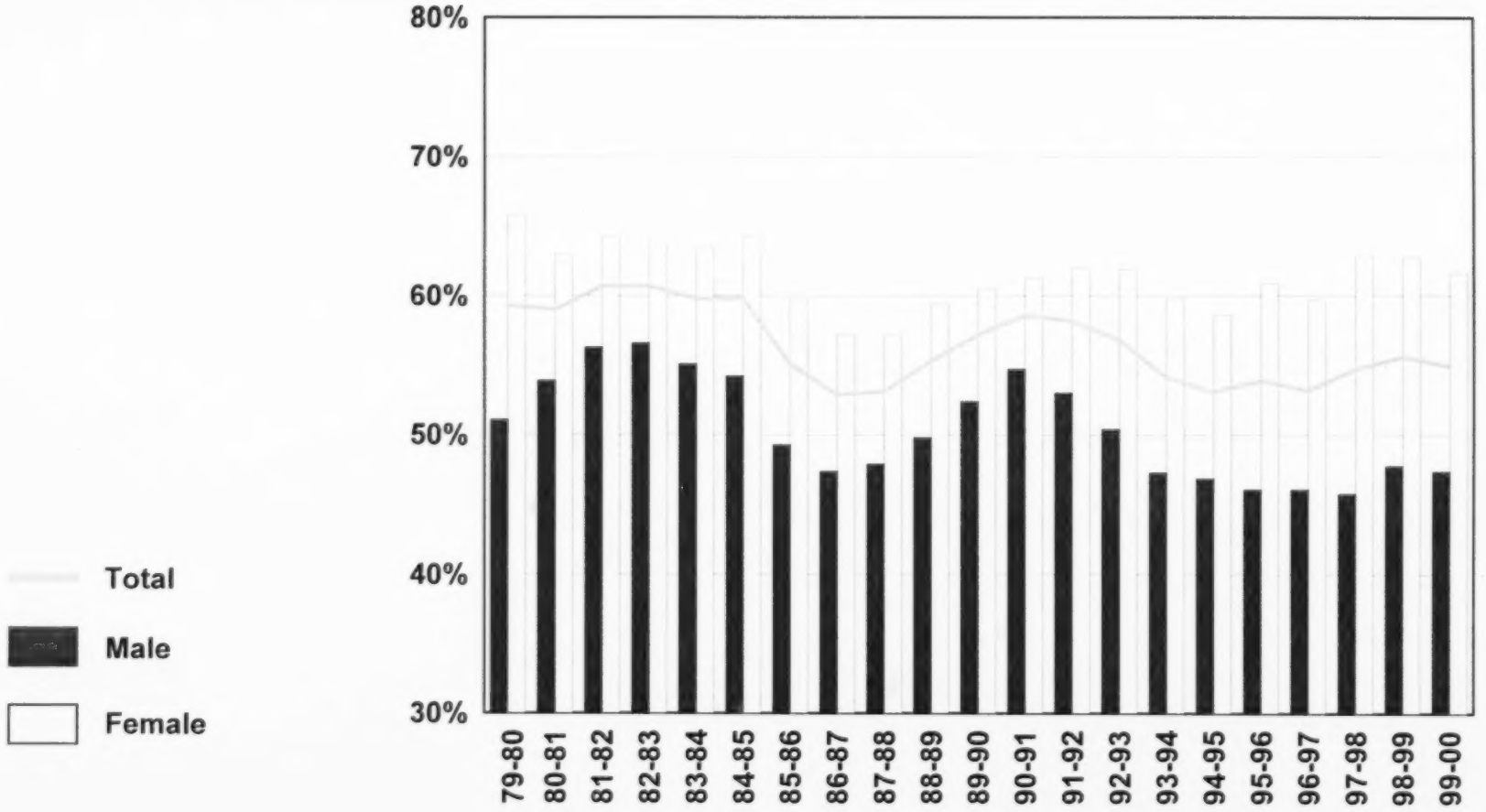
Proportion of students leaving a technical program with a DCS, by last year of enrollment in regular college education, gender, type of initial program, and time elapsed since initial enrollment[1] (%)

	1980-1981	1985-1986	1990-1991	1995-1996	1998-1999	1999-2000[e]
Male and female						
Same type of initial program						
3 years or less[1]	N/A	28.7	29.6	26.8	29.6	30.3
5 years or less[1]	N/A	50.5	51.1	47.8	49.5	50.2
All durations	N/A	53.7	56.6	53.1	54.8	54.9
Other type of initial program[2]						
All durations	N/A	61.1	64.4	55.7[2]	57.4	54.7
All types of initial programs–all durations						
Male and female	59.0	55.1	58.6	53.9	55.6	54.9
Male	53.9	49.2	54.7	46.1	47.8	47.4
Female	63.0	59.8	61.3	60.9	62.7	61.6

e: Estimates
N/A: Data not available
1. The time elapsed since initial enrollment is not necessarily the same as the duration of studies, because the studies may have been interrupted at some point.
2. Until 1993-1994, this category referred to students who began their studies in a pre-university program. As of 1994-1995, this category also includes students who left technical education (with or without a diploma) after having begun in an Explorations program the previous year.

Graph 3.4

Proportion of students leaving a technical program with a DCS, by gender and last year of enrollment in regular college education (%)



3.5 Duration of Studies in Regular College Education

The duration of studies for holders of a Diploma of College Studies (DCS) and for all students (regardless of whether or not they obtain a DCS) has changed very little over the years.[1]

On average, a DCS in pre-university education is obtained after 2.4 years equivalent to full-time study and a DCS in technical education, after 3.8 years.

Holders of a DCS who graduate from pre-university education have studied for an average of 2.4 years. For those who leave without a diploma, the total duration of studies is still an average of 1.5 years. The average duration of studies, whether students leave with or without a diploma, is 2.1 years.[2] For most students, that is, those who began their college studies directly in pre-university programs, the corresponding durations are 0.1 years or less. Students who transferred from another type of program take 3.1 years to obtain their DCS in pre-university education.

Students in technical programs take an average of 3.8 years to earn a DCS, while those who leave without a diploma do so after 2.1 years. Given the success rate (see Section 3.4), students leaving technical programs study for 3.1 years. Here too, those students who had been enrolled in technical programs right from the beginning of their college studies leave in a shorter time: those who obtained a DCS did so in 3.5 years and those leaving without a diploma did so after 1.8 years. However, students who had initially enrolled in pre-university programs (and who have a higher success rate) or in Explorations programs take 4.5 years to obtain a DCS in technical education.

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1. This is why the results of this section are the averages for college leavers for the last five years observed (that is, the averages for students enrolled for the last time from 1995-1996 to 1999-2000). However, in the case of students leaving without a diploma, over a 10-year period, the duration of studies before dropping out has lengthened, by 0.4 full-time terms for pre-university education and by 1 full-time term for technical education.
2. The duration of studies for all college leavers depends, on the one hand, on the respective duration of studies of students with a DCS and college leavers without a diploma, and on the other hand, on the weighting of these two categories of students, that is, the success rate. This explains why the duration of studies for all students, whether or not they leave with a diploma, has remained stable, even though the success rates have been dropping and the duration of studies for those leaving without a diploma has been getting longer.

Very slight differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. In pre-university education, female graduates, like women who leave their studies before obtaining a diploma, do so sooner (0.1 years) than men. This difference disappears, however, when college leavers overall are considered by gender because more women than men obtain a diploma, which raises the average duration of studies for women overall. The same effect can be observed in technical education, where female graduates study 0.1 years less than their male counterparts, while women who leave their studies before obtaining a diploma spend the same amount of time in school as men (2.1 years), with the ironic result that women overall study longer because more of them graduate.

Table 3.5

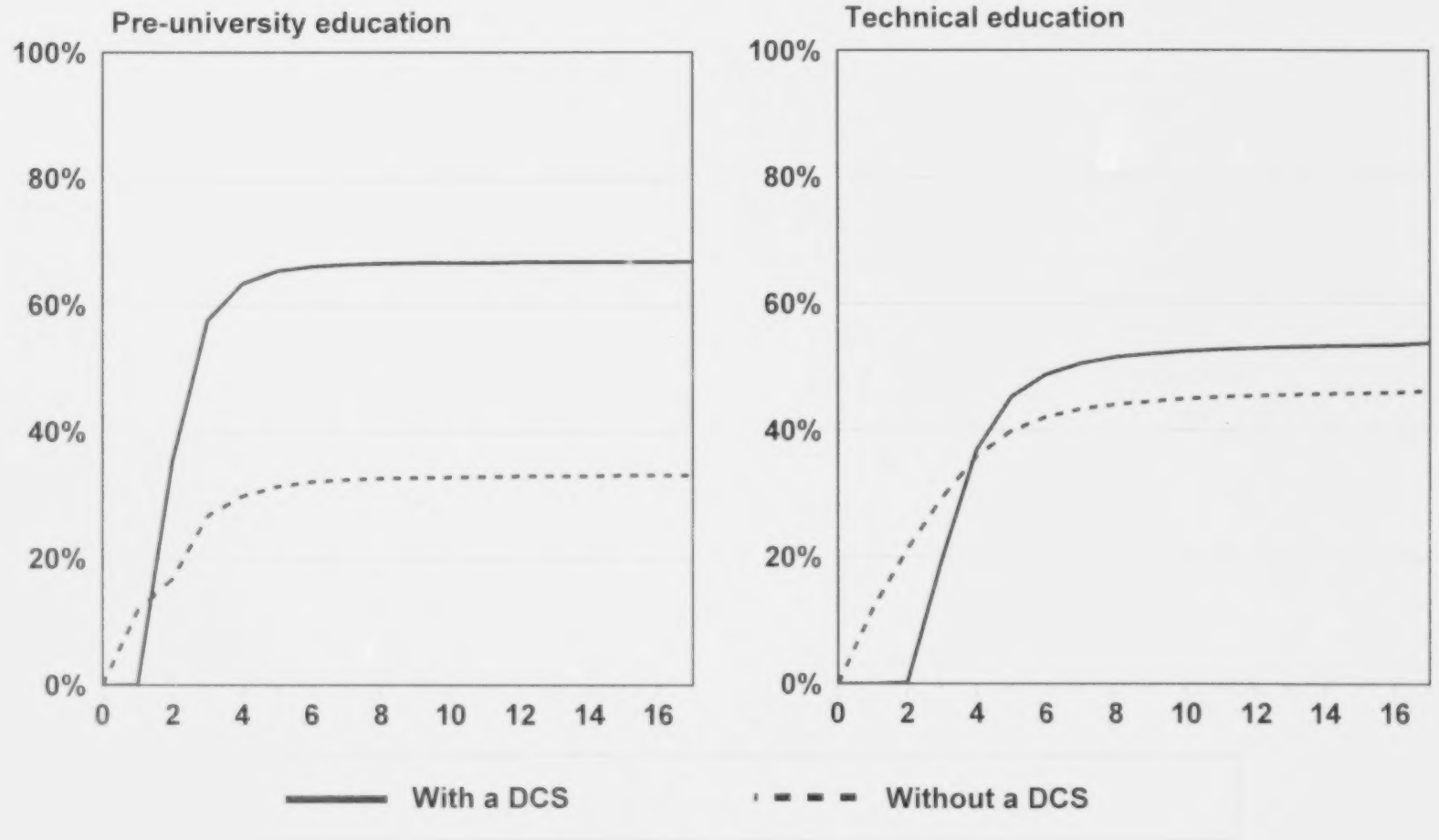
Average number of years[1] of study completed before leaving regular college education (average for all college leavers after 1995-1996), by gender and type of program enrolled in at the start and finish of the studies

	With Diploma		Without Diploma[2]		Total	
	Pre-university education	Technical education	Pre-university education	Technical education	Pre-university education	Technical education
Male	2.5	3.9	1.5	2.2	2.1	3.0
Female	2.4	3.8	1.4	2.1	2.1	3.1
Total[3]	**2.4**	**3.8**	**1.5**	**2.1**	**2.1**	**3.1**
Type of initial program						
Same	2.4	3.5	1.4	1.8	2.1	2.7
Different[3]	3.1	4.5	2.1	2.9	2.6	3.8

1. One year of full-time study is equivalent here to two full-time terms or eight part-time terms.
2. Refers to students who have interrupted their studies for at least six consecutive terms.
3. Refers to the total duration, including studies undertaken previously in other types of programs.

Graph 3.5

Cumulative school-leaving rates for regular college education between 1995-1996 and 1999-2000, by number of years elapsed since initial enrollment in a program leading to a DCS (%)



3.6 Success and Duration of Studies in Bachelor's Programs[1]

At the end of 1999-2000, 65.8% of students leaving a bachelor's program obtained their degree, that is, 0.6% fewer than the preceding year or the same proportion as two years earlier. In the 11-year period observed, the graduation rate increased; from 55.9% for students enrolled for the last time in 1987-1988, it reached an all-time high in 1998-1999.

Of 100 students enrolled in a program leading to a bachelor's degree and leaving their program at the end of 1999-2000, 65.8 obtained a degree, that is, the same proportion as two years earlier.

From the beginning of the period under observation, female students have had a higher success rate than male students, with the difference rising from 0.7 to 5.3 percentage points between 1987-1988 and 1999-2000, after a maximum gap of 7.7 percentage points in 1996-1997. In the last year observed, 68.1% of female students who left a bachelor's program did so with a degree, compared with 62.8% of their male counterparts. This phenomenon, coupled with the fact that more women than men enroll in bachelor's programs (see Section 2.10), explains the difference between the sexes with respect to graduation rates (see Section 5.7).

Graduates of bachelor's programs have studied for an average of 6.3 full-time terms, or for 8.8 terms if no consideration is given to whether they studied on a full-time or part-time basis.[2] Those who leave without a degree study an average of 2.6 terms, or slightly more than one year, full-time. For all students leaving bachelor's programs, the average duration of studies is 7.2 terms, 5.0 of which are full-time.

Differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. Whether women obtain a bachelor's degree or give up their studies without a degree, they do so sooner than

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1. Success in university programs leading to a bachelor's degree is measured here by the proportion of new holders of a bachelor's degree among all students leaving the programs with or without a degree. The degrees taken into account are bachelor's degrees obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in an undergraduate program leading to a bachelor's degree. Students are considered to have left school without a degree when they have been absent for a period of at least two years following the last year of enrollment.
2. A portion of the studies is done part-time and is added to the average duration of full-time studies. The duration of part-time studies is from 2.0 to 2.6 terms for graduates. For those who leave without a degree, the duration of part-time studies is from 1.6 to 2.0 terms. For all school leavers, the duration of part-time studies varies from 1.9 to 2.4 terms.

men. Women who obtain a bachelor's degree spend 0.7 fewer terms in full-time studies than men, while women who leave their program without a degree do so 0.5 terms sooner than men. Nevertheless, when the duration of studies is considered, regardless of full- or part-time status, the differences between the sexes are not as pronounced, because more women than men study part-time. For all students leaving bachelor's programs, the difference between the sexes is less evident, mainly because more women than men obtain a degree, which raises the average duration of studies for women overall.

Table 3.6a

Proportion of students graduating from a bachelor's program, by gender and last year of enrollment (%)

	1987-1988	1990-1991	1995-1996	1997-1998	1998-1999	1999-2000[e]
Male	55.5	59.7	61.7	62.7	63.5	62.8
Female	56.2	63.1	69.0	68.2	68.5	68.1
Total	**55.9**	**61.5**	**65.9**	**65.8**	**66.4**	**65.8**

e: Estimates

Table 3.6b

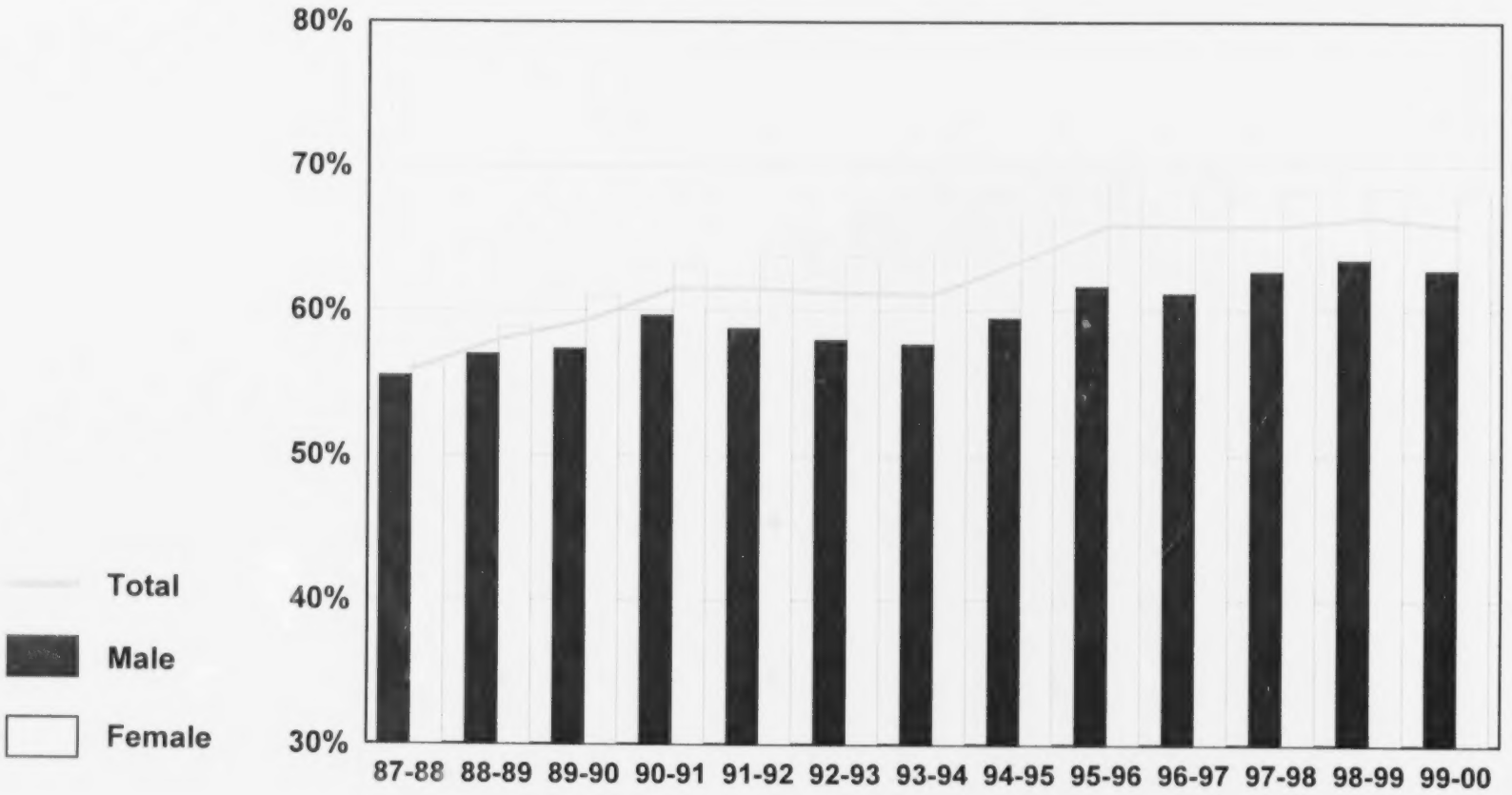
Average number of terms completed before leaving a bachelor's program (average for all leavers after 1995-1996), by gender

	With Degree		Without Degree[1]		Total	
	Full-time terms	All terms[2]	Full-time terms	All terms[2]	Full-time terms	All terms[2]
Male	6.7	9.0	2.9	4.5	5.2	7.3
Female	6.0	8.6	2.4	4.4	4.8	7.2
Total	**6.3**	**8.8**	**2.6**	**4.4**	**5.0**	**7.2**

1. Refers to students who have interrupted their studies for at least six consecutive terms.
2. Refers to the total duration of full- and part-time studies.

Graph 3.6

Proportion of students graduating from a bachelor's program, by gender and last year of enrollment (%)



3.7 Success and Duration of Studies in Master's Programs[1]

At the end of 1999-2000, 67.2% of students leaving a master's program obtained their degree. This is a gain of 11.1 percentage points over a 12-year period, as well as the highest level recorded for that period.

Of 100 students enrolled in a program leading to a master's degree and leaving their program at the end of 1999-2000, 67.2% obtained a degree, after an average of 7.7 terms of study.

In 1987-1988, relatively fewer women than men seeking a master's degree pursued their studies to graduation. Since then, women have taken the lead and now have a higher success rate than men. In 1999-2000, 69.1% of women leaving a master's program did so with a degree, for an increase of 14.1 percentage points since 1987-1988. The corresponding increase for men was 8.2 percentage points; in 1999-2000, 65.2% of men leaving a master's program did so with a degree. This phenomenon, coupled with the fact that more women than men enroll in master's programs (see Section 2.10), explains the difference between the sexes with respect to graduation rates (see Section 5.7).

Graduates of master's programs are enrolled for an average of 7.7 terms, regardless of whether they study on a full-time or part-time basis.[2] On average, students spend 4.1 terms in full-time studies. The total average duration of studies for students who leave without a degree is 5.3 terms, whether full-time or part-time. For all students leaving master's programs, the average duration of studies is 6.9 terms, 3.5 of which are full-time. The duration of studies referred to here is the actual duration and is not consistent with the calculation of full-time equivalents (FTEs) for funding purposes, where a standardized duration is generally recognized for a master's program with a thesis. In these cases, the "funded" duration is a maximum of 4 terms (1.5 years in FTEs) for master's programs. However, the actual

1. Success in university programs leading to a master's degree is measured here by the proportion of new holders of a master's degree among all students leaving the programs with or without a degree. The degrees taken into account are master's degrees obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a graduate program leading to a master's degree. Students are considered to have left school without a degree when they have been absent for a period of at least two years following the last year of enrollment.
2. A portion of the studies is done part-time and is added to the average duration of full-time studies. The duration of part-time studies is from 3.4 to 4.3 terms for graduates. For those who leave without a degree, the duration of part-time studies is from 2.7 to 3.4 terms. For all school leavers, the duration of part-time studies varies from 3.3 to 3.9 terms.

duration of studies exceeds this standard for all types of status. This means that students who leave without a master's degree are in practice fully funded, with the exception of a supplementary amount of $600 that is allocated to universities when the degree is awarded.

Differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. Contrary to what was observed at the college level and in bachelor's programs, women enrolled in master's programs do not take less time than men to obtain their degree. If full-time enrollment only is considered, women certainly leave sooner (with or without a diploma) than men, but women with a master's degree have studied part-time for 0.4 terms more than men, and women who leave without a master's degree were enrolled part-time for 3.2 terms, compared with 2.9 terms for their male counterparts.

Table 3.7a

Proportion of students graduating from a master's program, by gender and last year of enrollment (%)

	1987-1988	1990-1991	1995-1996	1997-1998	1998-1999	1999-2000[e]
Male	57.0	64.4	63.7	64.5	65.4	65.2
Female	55.0	64.5	67.5	68.1	68.0	69.1
Total	**56.1**	**64.5**	**65.6**	**66.3**	**66.7**	**67.2**

e: Estimates

Table 3.7b

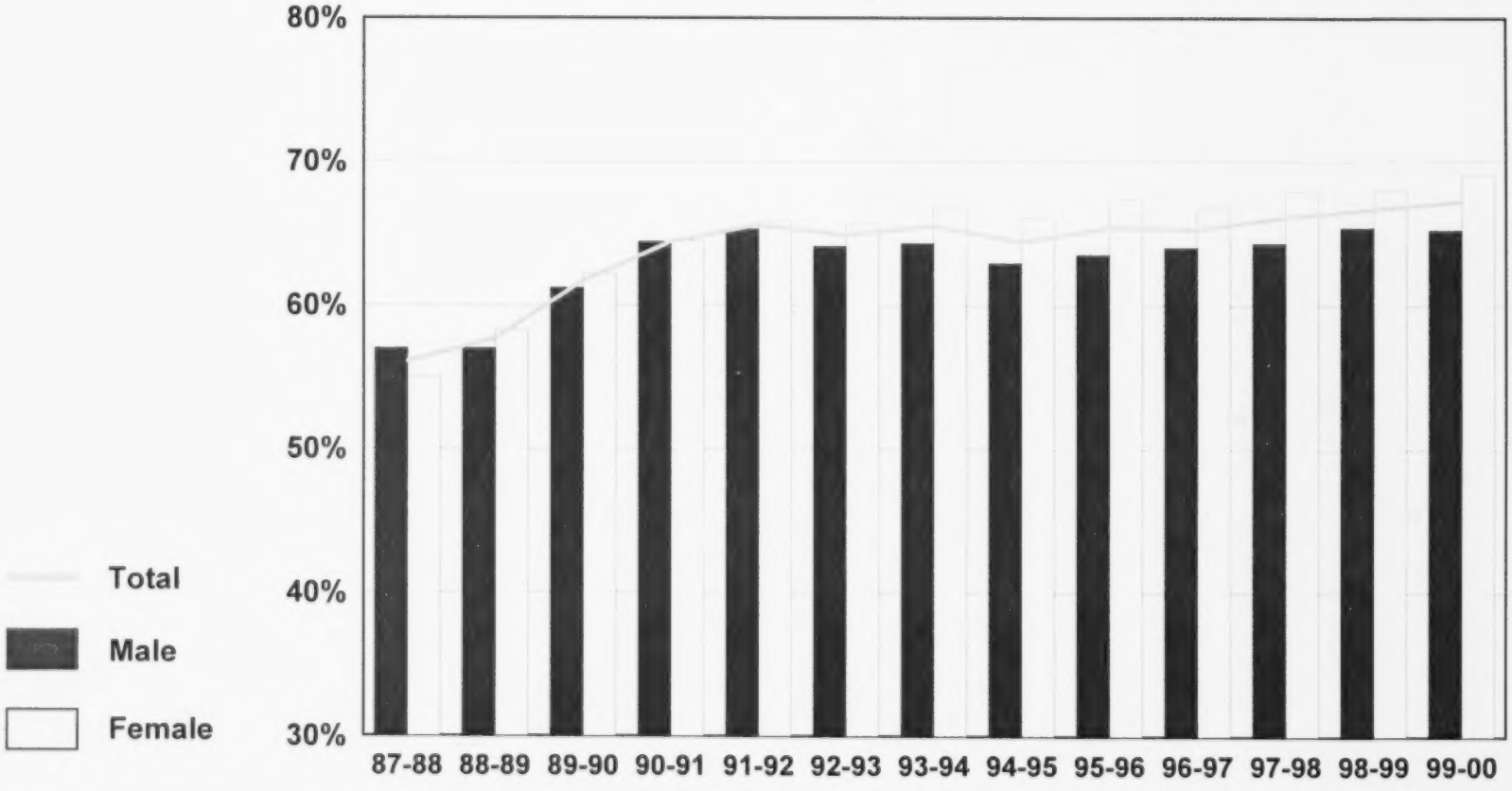
Average number of terms completed before leaving a master's program (average for all leavers after 1995-1996), by gender

	With Degree		Without Degree[1]		Total	
	Full-time terms	All terms[2]	Full-time temrs	All terms[2]	Full-time terms	All terms[2]
Male	4.2	7.6	2.4	5.3	3.5	6.7
Female	4.0	7.8	2.1	5.3	3.4	7.0
Total	**4.1**	**7.7**	**2.3**	**5.3**	**3.5**	**6.9**

1. Refers to students who have interrupted their studies for at least six consecutive terms.
2. Refers to the total duration of full- and part-time studies.

Graph 3.7

Proportion of students graduating from a master's program, by gender and last year of enrollment (%)



3.8 Success and Duration of Studies in Doctoral Programs[1]

At the end of 1999-2000, 53.0% of students leaving a doctoral program obtained their degree. Since 1987-1988, this proportion has increased by 4.3 percentage points, but has also dropped from its high of 58.1% in 1996-1997.

Of students enrolled in a doctoral program and leaving their program at the end of 1999-2000, 53.0% obtained a degree after an average of 15.7 terms.

There are still fewer women than men with doctorates. Of the women enrolled in 1999-2000 who left doctoral programs, 50.4% obtained their degree, for an increase of 10.1 percentage points compared with 12 years earlier. For men, the graduation rate increased by 1.8 percentage points in the same period and the proportion of male candidates who completed their studies in 1999-2000 with a degree was 54.9%, or 4.5 percentage points more than for female candidates. For women, however, the success rate has been steadily rising, while for men, it has been in decline since 1995-1996. This phenomenon, coupled with the fact that more women than men enroll in doctoral programs (see Section 2.10), explains the difference between the sexes with respect to graduation rates (see Section 5.7).

Graduates of doctoral programs are enrolled for an average of 15.7 terms, regardless of whether they study on a full-time or part-time basis.[2] On average, students spend 11.6 terms in full-time studies. Those who leave without a degree study for 9.3 terms, whether full-time or part-time. For students overall, whether they leave a doctoral program with or without a degree, they do so after 12.8 terms, of which 9.1 are full-time. The duration of studies referred to here is the actual duration and is not consistent with the calculation of full-time equivalents (FTEs) for funding purposes, where only a standardized duration is recognized. The "funded" duration is a maximum of 8 terms (3 years in FTEs) for

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1. Success in university programs leading to a doctorate is measured here by the proportion of new holders of a doctorate among all students leaving the programs with or without a degree. The degrees taken into account are doctorates obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a post-graduate program leading to a doctorate. Students are considered to have left school without a degree when they have been absent for a period of at least two years following the last year of enrollment.
2. A portion of the studies is done part-time and is added to the average duration of full-time studies. The duration of part-time studies is from 3.3 to 5.9 terms for holders of a doctorate. For those who leave without a degree, the duration of part-time studies is from 2.4 to 4.2 terms. For all school leavers, the duration of part-time studies varies from 3.0 to 4.9 terms.

doctoral programs. However, the actual duration of studies exceeds this standard for all types of status. This means that students who leave without a doctorate are in practice fully funded, with the exception of a supplementary amount of $1 000 that is allocated to universities when the degree is awarded.

Differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. Contrary to what was observed at the college level and in bachelor's programs, women enrolled in doctoral programs do not take less time than men to obtain their degree or to leave without one. If full-time enrollment only is considered, women certainly leave sooner (with or without a diploma) than men, but women with a doctorate have studied part-time for 1.7 terms more than men, and women who leave without a doctorate were enrolled part-time for 3.4 terms, compared with 2.8 terms for their male counterparts. For all students leaving doctoral programs, the difference between the sexes is less evident, mainly because more men than women obtain a degree, which raises the average duration of studies for men overall.

Table 3.8a

Proportion of students graduating from a doctoral program, by gender and last year of enrollment (%)

	1987-1988	1990-1991	1995-1996	1997-1998	1998-1999	1999-2000[e]
Male	53.1	55.5	60.9	57.3	56.9	54.9
Female	40.3	46.7	48.4	49.0	49.7	50.4
Total	**48.7**	**52.3**	**56.3**	**54.1**	**53.9**	**53.0**

e: Estimates

Table 3.8b

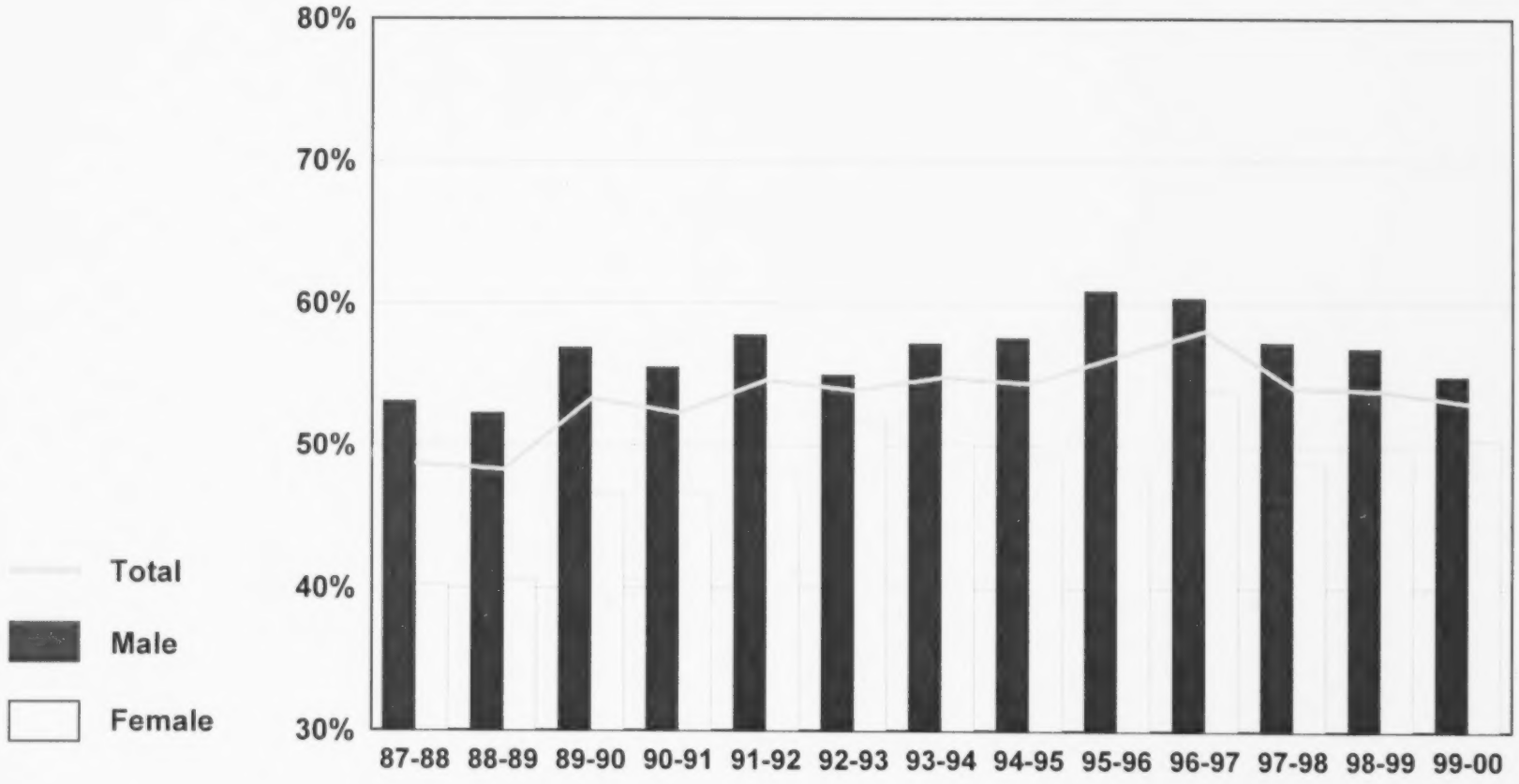
Average number of terms completed before leaving a doctoral program (average for all leavers after 1995-1996), by gender

	With Degree		Without Degree[1]		Total	
	Full-time terms	All terms[2]	Full-time terms	All terms[2]	Full-time terms	All terms[2]
Male	11.8	15.3	6.6	9.4	9.6	12.8
Female	11.3	16.5	5.7	9.1	8.5	12.8
Total	**11.6**	**15.7**	**6.2**	**9.3**	**9.1**	**12.8**

1. Refers to students who have interrupted their studies for at least six consecutive terms.
2. Refers to the total duration of full- and part-time studies.

Graph 3.8

Proportion of students graduating from a doctoral program, by gender and last year of enrollment (%)



4.1 Secondary School Examination Results, by Several Variables–Youth Sector

The Ministère de l'Éducation administers uniform examinations to students in Secondary IV and V for purposes of certification. The average result for the June 2001 examinations was 73.5%,[1] and the success rate was 85.9%.

The success rate on the Ministère's June 2001 secondary school uniform examinations was 85.9%. Overall, female students obtained higher marks than male students.

While female students have a much better record than male students for staying in school, they have no clear advantage over male students with regard to the results obtained on uniform examinations. This may be because of the higher dropout rate among male students, for it is usually the weaker students who leave school before graduation.

The average mark obtained by students in private schools was 7.8 percentage points higher than the average mark obtained in the public system. The success rate was 84.0% in the public system, compared with 94.7% in the private system. One of the factors likely to explain these differences is that private schools can impose selection criteria for admitting students.

Students who received instruction in French obtained better results on the examinations than students who studied in English. The average mark of students studying in French was 3.8 percentage points higher than that of students studying in English; the success rate of students studying in French was 5.8 percentage points higher than that of students studying in English.

The best results were obtained in the second language, and the poorest, in mathematics, history and language of instruction.

Female students outperformed male students in French, language of instruction, English, language of instruction, and French, second language. In the other subjects, there was little difference.

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1. This figure is calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure which renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

Table 4.1

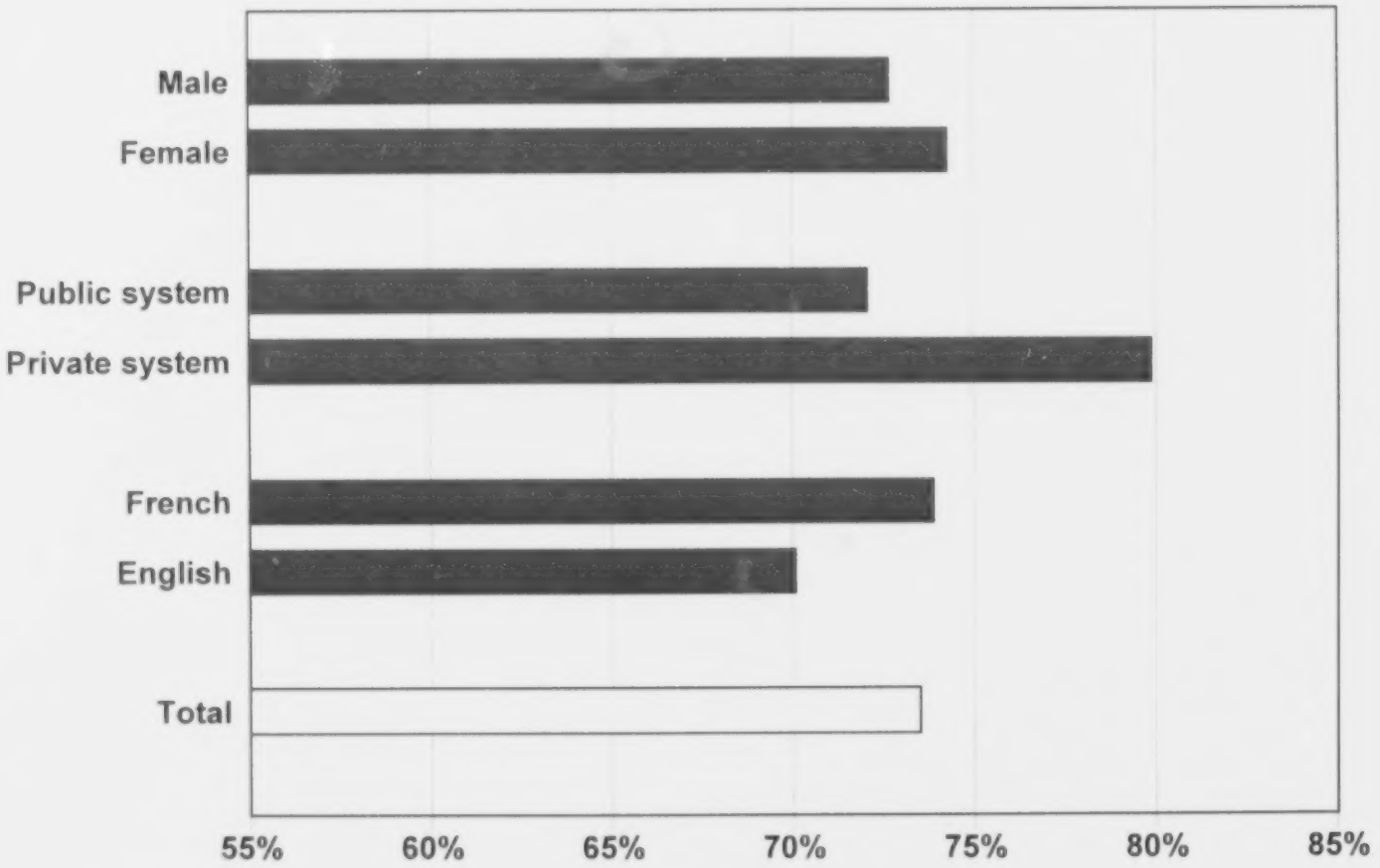
Results on secondary school uniform examinations in the youth sector, by gender, school system, language of instruction and subject: June 2001 (%)

	Average	Success Rate
Male	72.7	85.1
Female	74.3	86.8
Public system[1]	72.1	84.0
Private system	79.9	94.7
Language of instruction: French	73.9	86.5
Language of instruction: English	70.1	80.7
English, language of instruction (Secondary V)	72.8	94.8
English, second language (Secondary IV)	76.8	87.3
English, second language (Secondary V)	79.7	95.3
French, language of instruction (Secondary V)	72.6	91.2
French, second language (Secondary V)	76.6	92.5
History (Secondary IV)	71.2	79.9
Physical Science 416 (Secondary IV)	72.8	84.4
Mathematics 436 (Secondary IV)	66.3	73.8
Total	**73.5**	**85.9**

1. Excludes the Cree School Board, the Kativik School Board and institutions outside the jurisdiction of the Ministère de l'Éducation.

Graph 4.1

Results on secondary school uniform examinations in the youth sector, by gender, school system and language of instruction: June 2001 (%)



4.2 Regional Disparities in Secondary School Examination Results–Youth Sector

Six administrative regions recorded higher averages and success rates than the overall provincial results on the Ministère de l'Éducation's June 2001 uniform examinations.[1] These regions are Capitale-Nationale, Mauricie, Estrie, Chaudière-Appalaches, Montérégie and Lanaudière. Ranked among the lowest were Gaspésie–Îles-de-la-Madeleine, Saguenay–Lac-Saint-Jean, Côte-Nord and Nord-du-Québec.

The results on the Ministère's June 2001 uniform examinations showed a difference of 13.5 percentage points between the success rates of students in the region with the best performance (88.3%) and in the region with the poorest performance (74.8%).

Regional disparities declined slightly from 2000 to 2001. The difference between the highest and lowest average marks narrowed from 9.3 to 8.6 percentage points, and the gap in the success rates, from 15.4 to 13.5 percentage points.

The results on uniform examinations are not necessarily indicative of the probability of obtaining a secondary school diploma. In some regions, it is possible that a low student retention rate contributes to higher marks on the uniform examinations because the weakest students have dropped out.

1. Results are calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure which renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

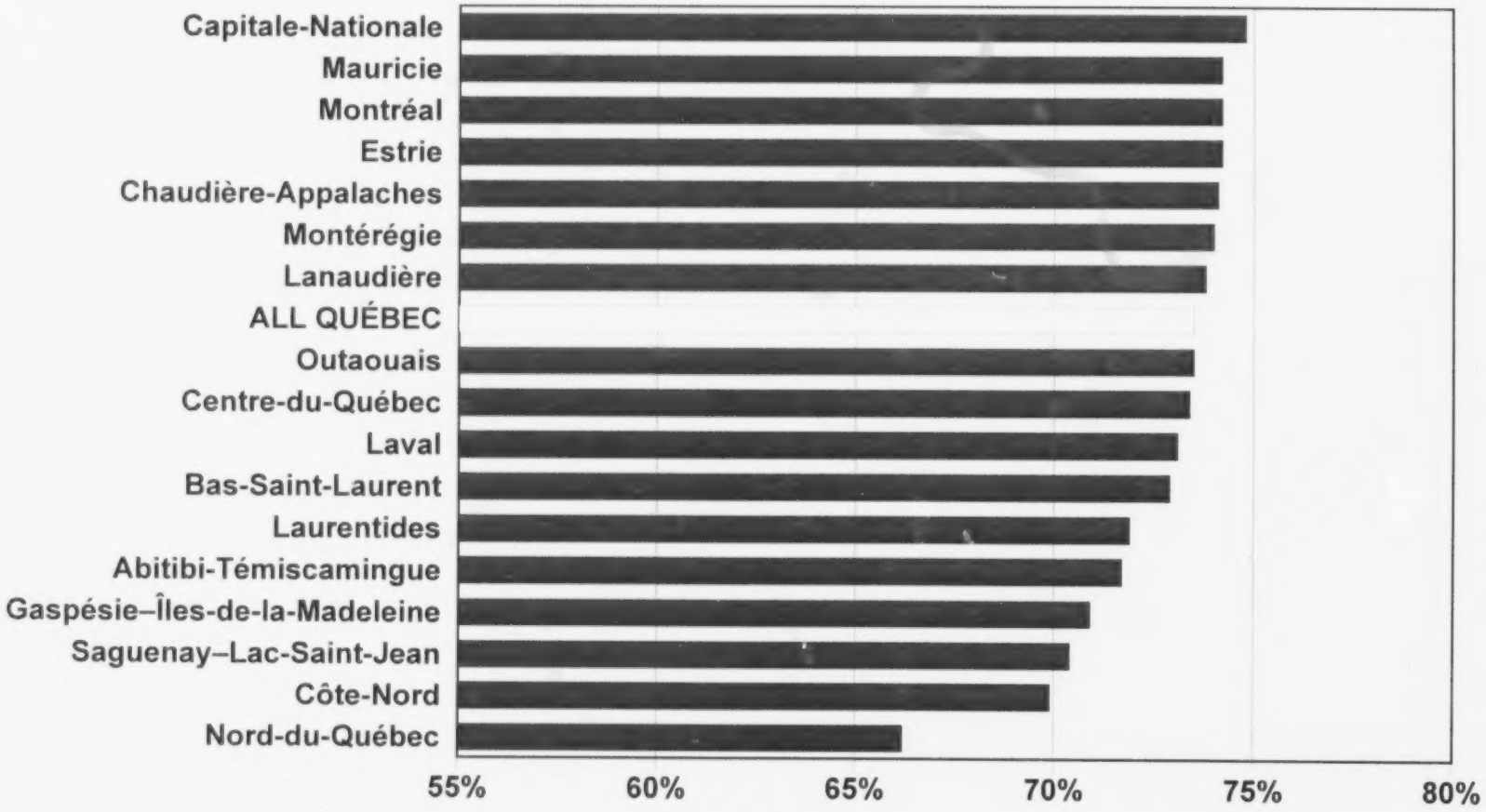
Table 4.2

Results on secondary school uniform examinations in the youth sector, by school administrative region: June 2001 (%)

School Administrative Region	Average	Success Rate
Gaspésie–Îles-de-la-Madeleine	70.9	82.6
Bas-Saint-Laurent	72.9	85.9
Saguenay–Lac-Saint-Jean	70.4	81.8
Capitale-Nationale	74.8	87.8
Chaudière-Appalaches	74.1	88.3
Mauricie	74.2	88.0
Centre-du-Québec	73.4	87.1
Estrie	74.2	87.4
Montérégie	74.0	87.1
Montréal	74.2	85.7
Laval	73.1	84.5
Lanaudière	73.8	86.3
Laurentides	71.9	83.4
Outaouais	73.5	85.0
Abitibi-Témiscamingue	71.7	84.0
Côte-Nord	69.9	80.0
Nord-du-Québec	66.2	74.8
Total	**73.5**	**85.9**

Graph 4.2

Average results on secondary school uniform examinations in the youth sector, by school administrative region: June 2001 (%)



4.3 Secondary V French, Language of Instruction, Examination–Youth Sector

Students who took the June 2001 Secondary V French, language of instruction, examination obtained an average mark of 72.6%; the success rate was 91.2%.[1]

The success rate on the Ministère's June 2001 Secondary V French, language of instruction, examination was 91.2%. Female students obtained significantly higher marks than male students.

The examination consisted of three components: written production, a reading comprehension exercise and an oral expression test. The reading comprehension and oral expression components were under the responsibility of the educational institutions. The results obtained in these sections are not included in Table 4.3; however, they were considered in the calculation of the overall results on the French examination. In written production, which was under the responsibility of the Ministère de l'Éducation, students obtained an average of 74.9%; the success rate was 86.4%.

Whereas there was no significant difference overall between the results obtained by male and female students on the examinations used for purposes of certification, female students outperformed male students on the French examination. The average for female students was 6.1 percentage points above that for male students, and the success rate was 7.6 percentage points in favour of female students. In written production, the female students' average was 6.3 percentage points higher than the male students' and their success rate was 9.0 percentage points higher.

The average obtained by private school students surpassed that of public school students by 5.5 percentage points. In the public system, 10.1% of the students failed the ministry examination, compared with 3.0% in the private system. In written production, students in private schools scored 5.1 percentage points higher than students in the public system.

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1. Results are calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure which renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

Table 4.3

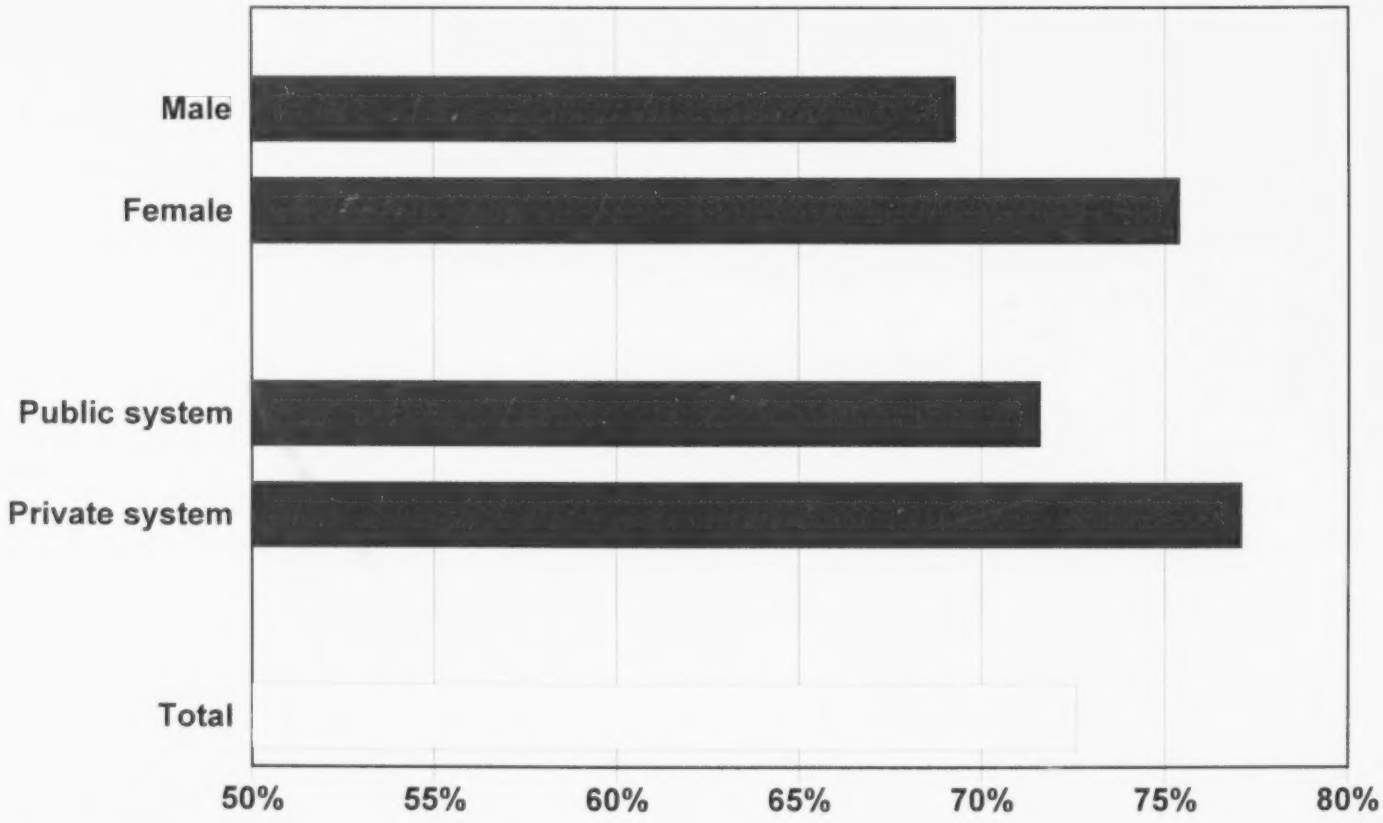
Results on the Secondary V French, language of instruction, examination in the youth sector, by gender and school system: June 2001 (%)

	Written Production		Overall Results	
	Average	Success Rate	Average	Success Rate
Male	71.5	81.5	69.3	87.1
Female	77.8	90.5	75.4	94.7
Public system[1]	74.0	85.1	71.6	89.9
Private system	79.1	92.5	77.1	97.0
Total	**74.9**	**86.4**	**72.6**	**91.2**

1. Excludes the Cree School Board, the Kativik School Board and institutions outside the jurisdiction of the Ministère de l'Éducation.

Graph 4.3

Average results on the Secondary V French, language of instruction, examination in the youth sector, by gender and school system: June 2001 (%)



4.4 Reading Literacy in 15-Year-Olds

In April and May 2000, 4 497 Québec 15-year-olds from 165 different schools participated in the first survey of the Programme for International Student Assessment (PISA). The evaluation of student achievement in reading, or "reading literacy," was carried out in 32 countries, 28 of which are member countries of the Organisation for Economic Co-operation and Development (OECD). A total of 265 000 students took part in PISA 2000.

In reading, young Quebeckers ranked among the best. Only students from Alberta obtained significantly better results[1] than Québec students on the PISA 2000 international reading test.

"Reading literacy" is defined as the ability to understand, use and reflect on written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate effectively in society.

Table 4.4 presents the results of reading performance according to a combined reading literacy scale that summarizes the results from the three reading literacy scales, that is, retrieving written information, interpreting written information, and reflecting on written information.

Québec students obtained an average score of 536 points in reading, and were surpassed only by students from Alberta (550 points). Québec students lost the most points in "reflecting on written information." These results are comparable to those of Finland (546), British Columbia (538), New Zealand (529), Australia (528) and Korea (525), but slightly higher than those of the United Kingdom (523), Japan (522), Sweden (516) and France (505).

Students from Alberta (550 points), British Columbia (538), Ontario (533), Manitoba (529) and Saskatchewan (529) obtained scores that most resembled those of Québec students. Francophone Quebeckers performed better (535) than francophones from other provinces and other countries, including Switzerland (512), France (505) and Belgium

1. If two "confidence intervals" overlap, it can be concluded that there is no significant difference between the two results (averages). An "approximate confidence interval" represents a range of plus or minus about two standard errors around the average. A standard error is a statistic used to express the degree of uncertainty in the scores for the sample compared with the population. In this report, it can be estimated with 95% probability that the score (average) for the full population falls within the confidence interval.

(476). Results of Québec anglophones (543 points) were exceeded, but not significantly, only by those of Alberta students (550).

In Québec, as in all participating provinces and countries, boys (521 points) obtained slightly lower scores than girls (553).

In Québec, 15.9% of students placed in Level 5 of reading proficiency,[2] 29.2% in Level 4, 29.4% in Level 3 and 17.2% in Level 2. Only 6.4% of students placed in Level 1, and very few students (2.0%) obtained a score below Level 1. These results are shown in Graph 4.4.

In addition, PISA included questionnaires completed by students and school principals that made it possible to determine the degree of influence of various individual, family and school factors on student achievement. According to this survey, the main factors that positively impact reading performance are enjoyment of reading, student career expectations, socioeconomic status of the family, the number of books at home, the school average socioeconomic status and the disciplinary climate at school. The survey confirmed the primacy of parent's influence on their children's education.

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2. There are five levels of proficiency for each reading literacy scale. Level 5 corresponds to a score above 625 points; Level 4, from 553 to 625 points; Level 3, from 481 to 552 points; Level 2, from 408 to 480 points; and Level 1, from 335 to 407 points.

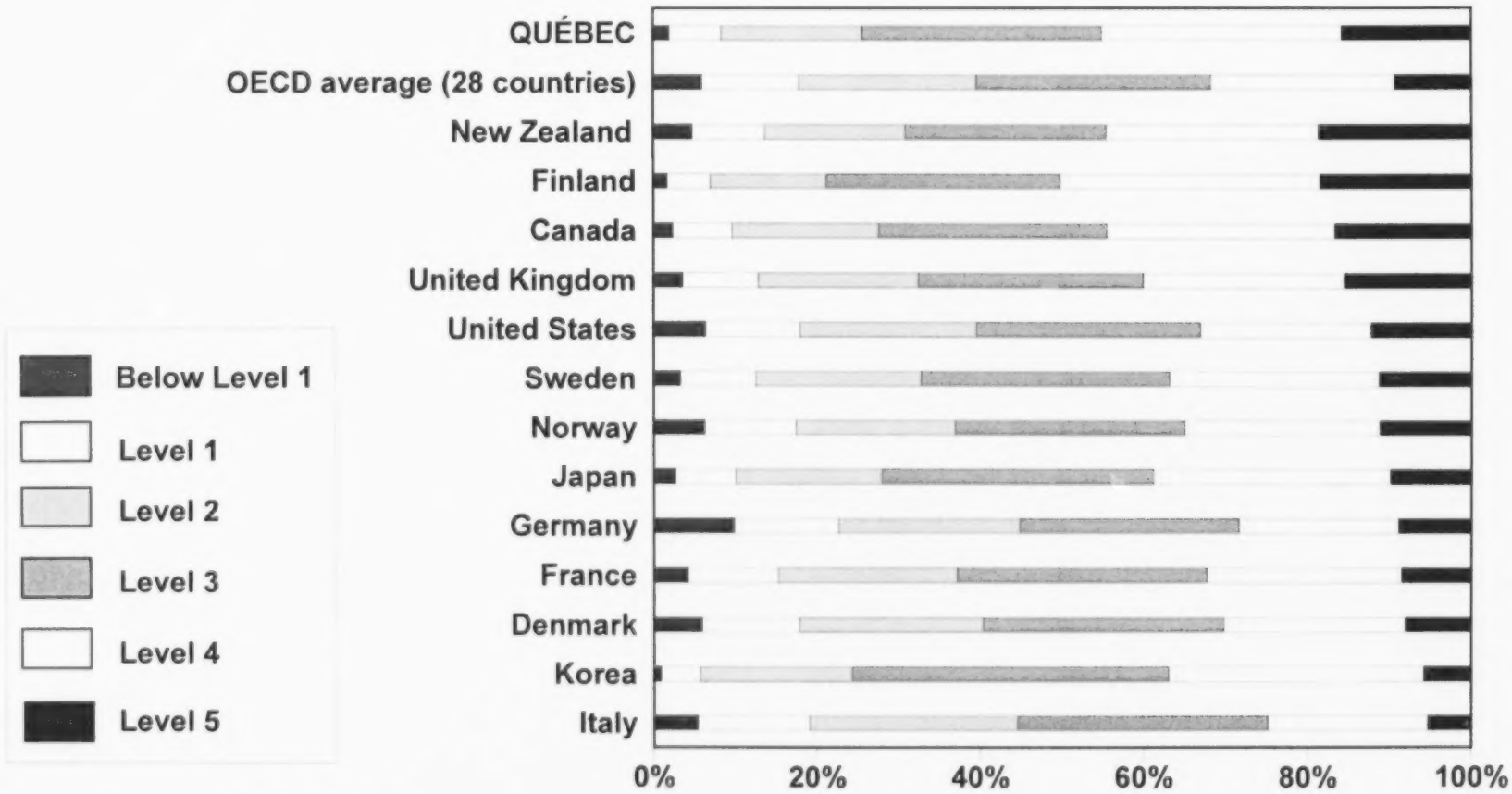
Table 4.4

Results of 15-year-olds on the PISA 2000 reading test: Québec, certain OECD countries and the other provinces

Country	Average Score	Confidence Interval	Province	Average Score	Confidence Interval
Finland	546	5.1	Alberta	550	6.5
Québec	**536**	**6.0**	British Columbia	538	5.7
Canada	534	3.1	**Québec**	**536**	**6.0**
New Zealand	529	5.5	Ontario	533	6.5
Australia	528	7.0	Manitoba	529	7.0
Korea	525	4.8	Saskatchewan	529	5.3
United Kingdom	523	5.1	Nova Scotia	521	4.5
Japan	522	10.4	Prince Edward Island	517	4.8
Sweden	516	4.4	Newfoundland	517	5.6
Belgium	507	7.1	New Brunswick	501	3.5
France	505	5.4			
United States	504	14.0			
Denmark	497	4.7			
Spain	493	5.4			
Italy	487	5.6			
Germany	484	4.7			
Mexico	422	6.4			
OECD average (28 countries)	**500**	**1.2**			

Graph 4.4

Proportion of students in each level of proficiency of the combined reading literacy scale of PISA 2000



4.5 Mathematical Literacy in 15-Year-Olds

In mathematics, young Quebeckers ranked second among the 32 countries and Canadian provinces that participated in the PISA 2000 international mathematics test.

In April and May 2000, 4 497 Québec 15-year-olds from 165 different schools participated in the first survey of the Programme for International Student Assessment (PISA). The evaluation of student achievement in "mathematical literacy" was carried out in 32 countries, 28 of which are member countries of the Organisation for Economic Co-operation and Development (OECD). A total of 265 000 students took part in PISA 2000.

"Mathematical literacy" is defined as the ability to pose and solve mathematical problems in a variety of situations. Three aspects of mathematical literacy are covered in PISA: mathematical content, mathematical processes, and situations in which mathematics is used.

Québec, with 550 points, ranks second among the 32 participating countries after Japan, which had an average score of 557 points. The results of Japanese students are, however, not significantly[1] higher than those of Québec students. Results of Québec students are also comparable to those in Korea (547), but higher than those in New Zealand (537), Finland (536), the United Kingdom (529), Belgium (520), France (517), Denmark (514) and the United States (493).

In Canada, students from Alberta (547 points) obtained results that most closely resembled those of Québec students. Québec francophones, with 551 points, performed better than francophone students from other provinces, whereas Québec anglophones (544 points) had the same scores as students from Alberta (547 points).

In Québec, as in all the participating provinces and countries, boys (556 points) performed slightly better than girls (547 points), but the difference is not significant. Significant but small differences between girls and boys were

1. If two "confidence intervals" overlap, it can be concluded that there is no significant difference between the two results (averages). An "approximate confidence interval" represents a range of plus or minus about two standard errors around the average. A standard error is a statistic used to express the degree of uncertainty in the scores for the sample compared with the population. In this report, it can be estimated with 95% probability that the score (average) for the full population falls within the confidence interval.

observed for Canada, France and Germany. These results do not indicate that there is no difference between the sexes in mathematics proficiency, but only that PISA 2000 does not allow precise observation of differences by gender.

The average score of Québec francophones was 7 percentage points higher than that of Québec anglophones. This difference is not statistically significant. In Canada, only Ontario recorded a significant difference between its francophone students (497 points) and its anglophone students (525 points).

In addition, PISA included questionnaires completed by students and school principals that made it possible to determine the degree of influence of various individual, family and school factors on student achievement. According to the survey, the main factors that positively impact mathematics performance are student career expectations, being a boy, enjoyment of reading, socioeconomic status of the family and the number of books at home.

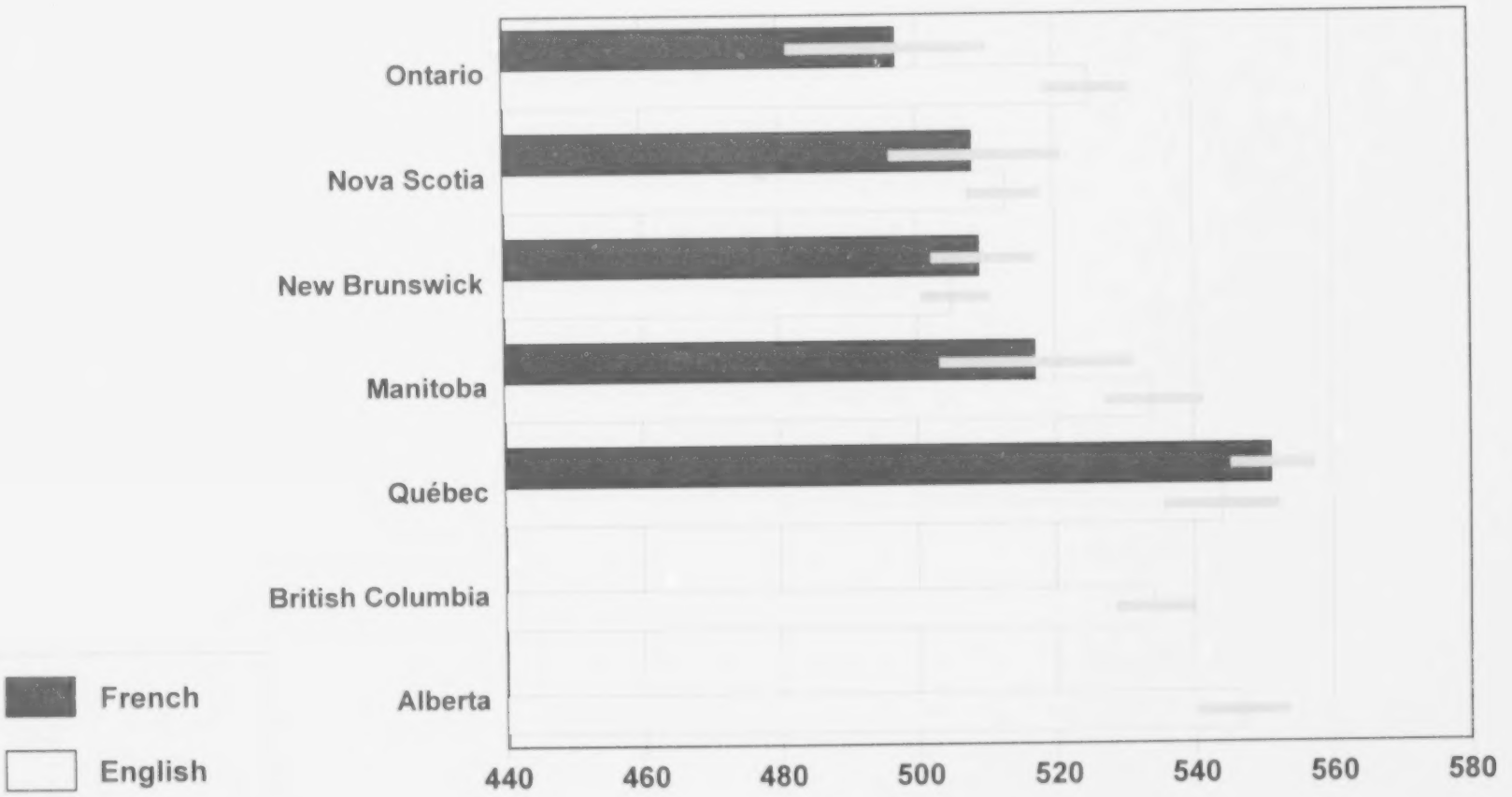
Table 4.5

Results of 15-year-olds on the PISA 2000 mathematics test: Québec, certain OECD countries and the other provinces

Country	Average Score	Confidence Interval	Province	Average Score	Confidence Interval
Japan	557	10.9	**Québec**	**550**	**5.4**
Québec	**550**	**5.4**	Alberta	547	6.6
Korea	547	5.5	British Columbia	534	5.6
New Zealand	537	6.3	Manitoba	533	7.3
Finland	536	4.3	Saskatchewan	525	5.8
Australia	533	6.9	Ontario	524	5.8
Canada	533	2.8	Nova Scotia	513	5.6
United Kingdom	529	5.0	Prince Edward Island	512	7.4
Belgium	520	7.8	Newfoundland	509	5.9
France	517	5.4	New Brunswick	506	4.4
Denmark	514	4.9			
Sweden	510	4.9			
United States	493	15.2			
Germany	490	5.0			
Spain	476	6.2			
Italy	457	5.8			
Mexico	387	6.7			
OECD average (28 countries)	**500**	**0.7**			

Graph 4.5

Results of 15-year-olds on the PISA 2000 international mathematics test, by province and language of school system (average scores and confidence intervals)



4.6 Scientific Literacy in 15-Year-Olds

In April and May 2000, 4 497 Québec 15-year-olds from 165 different schools participated in the first survey of the Programme for International Student Assessment (PISA). The evaluation of student achievement in "scientific literacy" was carried out in 32 countries, 28 of which are member countries of the Organisation for Economic Co-operation and Development (OECD). A total of 265 000 students took part in PISA 2000.

In science, young Quebeckers had an average score of 541 points. They placed in the top ranks among the 32 countries and Canadian provinces that participated in PISA 2000.

"Scientific literacy" is defined as the capacity to use scientific knowledge, to identify questions and to draw evidence-based conclusions in order to understand and help make decisions about the natural world and the changes made to it through human activity. Three aspects of scientific literacy are covered in PISA: scientific concepts, scientific processes, and scientific situations and field of applications.

Québec ranked among the highest, that is, fourth, after Korea (552 points), Japan (550) and Alberta (546). The performance of students from Korea, Japan and Alberta was not, however, significantly[1] better than that of Québec students.

The results of Québec students (541 points) are also comparable to those of students in Finland (538), British Columbia (533) and the United Kingdom (532), but higher than Canada (529), New Zealand (528), Australia (528), France (500), the United States (499) and Denmark (481).

In Canada, students from Alberta (546 points) obtained results that most closely resembled those of Québec students. Francophone Quebeckers performed better (542 points) than francophones from other provinces and scored 11 points

1. If two "confidence intervals" overlap, it can be concluded that there is no significant difference between the two results (averages). An "approximate confidence interval" represents a range of plus or minus about two standard errors around the average. A standard error is a statistic used to express the degree of uncertainty in the scores for the sample compared with the population. In this report, it can be estimated with 95% probability that the score (average) for the full population falls within the confidence interval.

higher than Québec anglophone students (531 points), who obtained results similar to those of students in British Columbia (533), Manitoba (527) and Ontario (524).

In Québec, as in most participating provinces and countries, boys (541 points) and girls (542 points) had similar scores. Significant differences between boys and girls were observed in only three countries. These results do not indicate that there is no difference between the sexes in science proficiency, but only that PISA 2000 does not allow precise measurement of differences by gender.

In addition, PISA included questionnaires completed by students and school principals that made it possible to determine the degree of influence of various individual, family and school factors on student achievement. According to the survey, the main factors that positively impact science performance are enjoyment of reading, student career expectations, being a boy, the number of books at home and the socioeconomic status of the family.

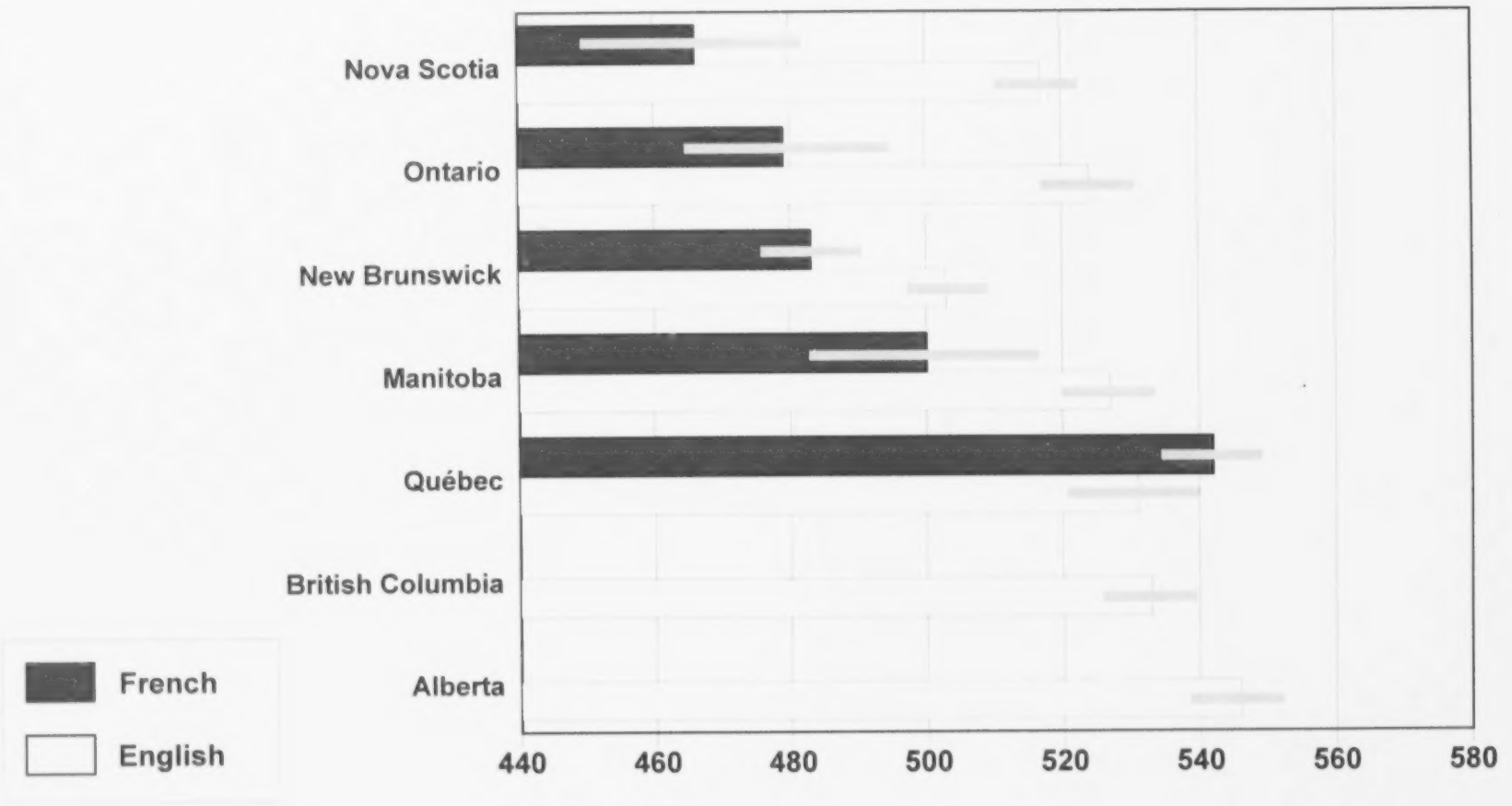
Table 4.6

Results of 15-year-olds on the PISA 2000 science test: Québec, certain OECD countries and the other provinces

Country	Average Score	Confidence Interval	Province	Average Score	Confidence Interval
Korea	552	5.4	Alberta	546	6.9
Japan	550	10.9	**Québec**	**541**	**6.7**
Québec	**541**	**6.7**	British Columbia	533	6.4
Finland	538	4.9	Manitoba	527	7.1
United Kingdom	532	5.3	Ontario	522	6.8
Canada	529	3.1	Saskatchewan	522	5.9
New Zealand	528	4.8	Newfoundland	516	6.7
Australia	528	6.9	Nova Scotia	516	6.0
Sweden	512	5.0	Prince Edward Island	508	5.4
France	500	6.3	New Brunswick	497	4.5
United States	499	14.6			
Belgium	496	8.5			
Spain	491	5.9			
Germany	487	4.8			
Denmark	481	5.6			
Italy	478	6.1			
Mexico	422	6.3			
OECD average (28 countries)	**500**	**0.7**			

Graph 4.6

Results of 15-year-olds on the PISA 2000 international science test, by province and language of school system (average scores and confidence intervals)



4.7 Ministerial Examination of College French

In 2000-2001, 40 287 college students wrote the ministerial examination of college French, language of instruction and literature.

In 2000-2001, the success rate on the ministerial examination of college French was 83.7%.

Since January 1, 1998,[1] students in French CEGEPs must pass this examination to obtain a Diplôme d'études collégiales (DEC) and be admitted to university. The students must read a series of texts and write an essay on one of them, thereby demonstrating their ability to understand a variety of texts and produce a structured essay using correct language.

There are three major evaluation criteria: I-Comprehension and insight; II-Organization of response; and III-Expression. The first two criteria contain specific subcriteria that are evaluated using a seven-level rating scale: A (very good), B (good), C+ (fair), C (adequate), D (weak), E (very poor) and F (unacceptable). In the Expression criterion, the "appropriate use of words" subcriterion is evaluated using the same rating scale, while sentence structure, punctuation, spelling and grammar are evaluated quantitatively, by counting errors. Students must obtain a C or better for each of the three major criteria. A grade of C represents an adequate level of competence. Therefore, students who obtain a D or worse on any one of the three criteria automatically fail the examination.

The results were much better for Organization of response, on which 50.1% of students obtained an A. Good results were also obtained for Comprehension and insight, on which 52.2% of students obtained a B and 8.8%, an A. The results for the third criterion, Expression, were not as good, with 71.6% of students earning a B or a C. In addition, 13.7% of students failed this criterion and, consequently, the examination. The success rate for the examination was 83.7%, a drop of 4.4 percentage points compared with 1999-2000. This fluctuation is primarily due to a drop of 3.6 percentage points in Expression and to a rise in the percentage of students who retook the examination and had a success rate of only 55.5%.

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1. This requirement has been postponed until January 1, 2003, for students who have passed at least one language literature course in the old system.

The success rate for women was 86.4%, compared to 79.9% for men.

Students enrolled in pre-university programs leading to a DEC recorded a success rate of 90.3%, while students enrolled in technical programs leading to a DEC achieved a success rate of 76.9%. Students enrolled in programs leading to an Attestation d'études collégiales (AEC) or a Certificat d'études collégiales (CEC) had a success rate of 51.9%. Students enrolled in shorter programs therefore did not do as well on the French examination.

Table 4.7a

Success rate for the ministerial examination of college French, by gender and type of program (%)

	Success Rate			
	1997-1998	1998-1999	1999-2000	2000-2001
Female	89.4	90.8	90.7	86.4
Male	84.2	85.4	84.4	79.9
Pre-university education (DEC)	91.8	93.2	93.1	90.3
Technical education (DEC)	81.7	83.3	82.7	76.9
Overall examination	**87.3**	**88.6**	**88.1**	**83.7**

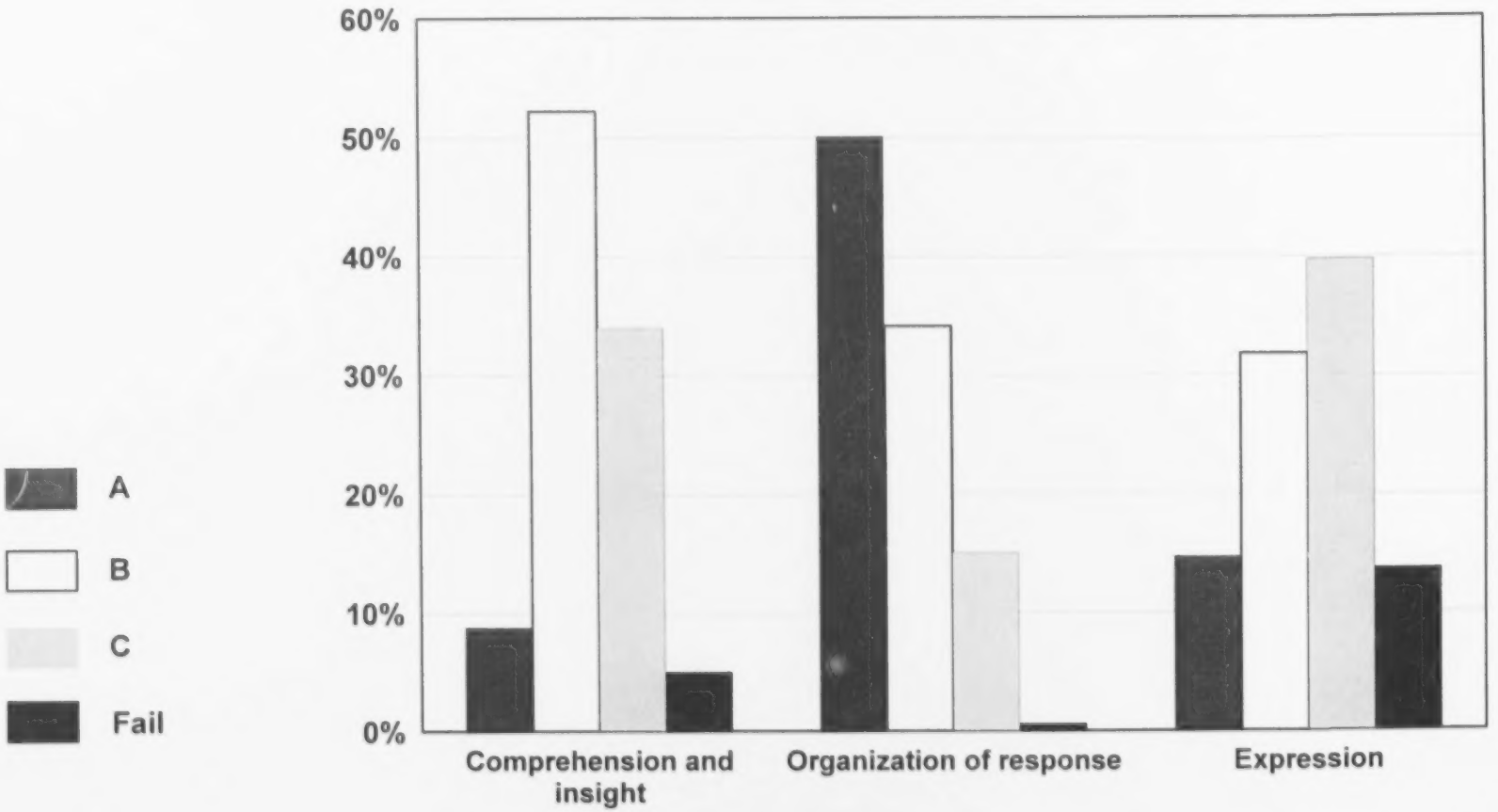
Table 4.7b

Distribution of students according to the grade obtained on each criterion of the ministerial examination of college French (%)

Criteria for the 2000-2001 examination	Distribution of students (%)				Success Rate
	A	B	C	Fail	
Comprehension and insight	8.8	52.2	34.0	5.0	95.0
Organization of response	50.1	34.1	15.1	0.6	99.4
Expression	14.7	31.8	39.8	13.7	86.3

Graph 4.7

Distribution of students according to the grade obtained on each criterion of the ministerial examination of college French, 2000-2001



5.1 Highest Diploma or Degree Earned

The main data pertaining to diplomas obtained at the various levels of education appears in the diagram in the Introduction and is presented in more detail in the following sections. Organized in a different way,[1] this data may also show the distribution of a cohort of school leavers according to the highest diploma earned.[2]

In 1999-2000, 62.7% of those leaving the education system graduated with a bachelor's degree or a diploma in vocational or technical education.

Between 1975-1976 and 1999-2000, graduation rates at the secondary and university levels rose rapidly for both men and women. The increase in the proportion of new graduates with bachelor's degrees (from 14.9% to 26.6%) was accompanied, at the other extreme, by a drop of more than one half in the proportion of those leaving school without a diploma (from 43.0% to 17.0%). This decline has resulted in a significant increase in all the other categories.

Thus, the proportion of school leavers who are not prepared for the labour market, that is, persons without a diploma or with only a Secondary School Diploma (SSD) in general education or a pre-university Diploma of College Studies (DCS) (including DCSs without mention) dropped from 63.2% in 1975-1976 to 37.3% in 1999-2000. This decline of 25.9 percentage points is reflected by increases of 11.7 percentage points in the proportion of graduates with a bachelor's degree and 14.2 percentage points in the proportion of holders of vocational or technical education diplomas (9.9 and 4.3 percentage points, respectively).

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1. It is assumed that the diplomas awarded at a given level are preceded by a diploma at a lower level. For example, the number of bachelor's degrees should be a subset of the number of DCSs; it follows that the surplus of DCSs in relation to the bachelor's degrees would represent the number of DCSs that are not followed by a university degree. For this reason, there are no persons with a DCS in pre-university education or without mention as a last diploma in 1975-1976 and 1995-1996. An additional hypothesis makes it possible to estimate the number of DCSs in technical education that are followed by a bachelor's degree. It is also assumed that secondary vocational education diplomas are not followed by another higher-level diploma. Partial studies at a given level are grouped with the diploma immediately below: for example, uncompleted college studies are considered with the SSDs in general education.
2. This level of schooling is different from the level for the general population as indicated in the census, the latter being primarily a historical reflection of all the generations in question. The level measured here is the schooling for persons currently leaving the education system. It also shows what the general state of schooling would be if current trends were to continue.

A glance at the situation according to gender highlights the disparities already observed in the schooling of men and women. In 2000, one and a half times more women than men graduated with a bachelor's degree or with a college diploma in technical education (46.3% compared with 30.6%), while roughly two and a half times fewer women than men left school without a diploma (10.1% compared with 23.6%).

Table 5.1

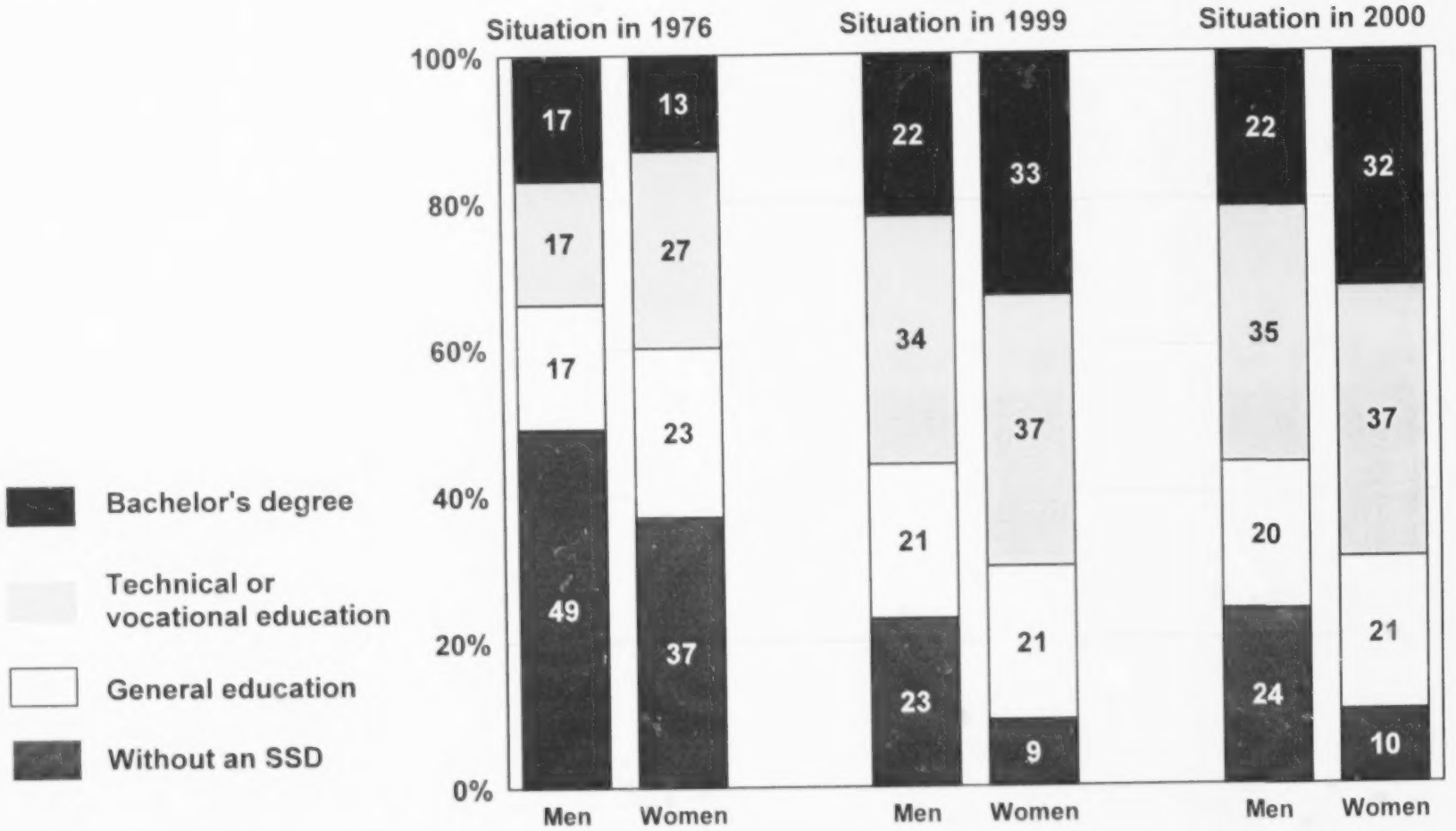
Distribution of school leavers, by highest diploma earned (%)

	1975-1976	1985-1986	1990-1991	1995-1996	1998-1999	1999-2000
Bachelor's degree[1]	14.9	19.0	23.6	29.0	27.3	26.6
College diploma in technical education[2]	7.4	11.2	10.4	11.2	11.7	11.7
Secondary vocational education diploma[3]	14.5	17.7	13.7	19.4	23.3	24.4
General education (DCS or SSD)	20.2	31.3	29.1	28.6	21.3	20.3
No diploma	43.0	20.8	23.2	11.8	16.3	17.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

1. Figures for university are based on the calendar year in which the school year ends.
2. The diplomas considered here are the Diploma of College Studies (DCS) in technical education, the Attestation of College Studies (ACS) until 1984, the Certificat d'études collégiales (CEC–certificate of college studies) and the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies).
3. The diplomas considered here are the Short Vocational Diploma, the Long Vocational Diploma, the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS–known as the Secondary School Vocational Diploma [SSVD] prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and other secondary school diplomas (SSDs) with mention of vocational specialty.

Graph 5.1

Distribution of school leavers by highest diploma or degree earned (%)



5.2 Graduation From Secondary School–Youth and Adult Sectors

The probability of obtaining a secondary school diploma[1] in 2000-2001 was 82.5%, that is, a slight drop from 1998-1999. This figure is lower than the peak of 88.1% observed in 1995-1996.

In 2000-2001, the probability of obtaining a first secondary school diploma in the youth or adult sector was 82.5%.

The relative stability in enrollment in Cycle Two of secondary education (see Section 2.3) and in general education in the adult sector (see Section 2.5) seems to indicate that the probability of obtaining a secondary school diploma will be the same or in slight decline in the next few years.

In 2000-2001, for students in the youth sector and under 20 years of age in the adult sector in Québec, the probability of obtaining a secondary school diploma was 71.7%, which is almost the same level observed the previous year. The Ministère's objective is to reach a rate of 85% by the year 2010.

The graduation rate discussed here applies primarily to general education. Later (in Section 5.4) it will be seen that the graduation rate for vocational education remained stable in 2000-2001. The present section is primarily concerned with the first diplomas obtained.[2] It might be interesting to note that in 2000-2001, 91.1% of all the diplomas earned were first diplomas obtained in general education. This proportion was 97.7% if only diplomas obtained in the youth sector or by students under 20 years of age in the adult sector are considered.

The temporary slump in the graduation rate between 1986 and 1990 was largely due to the raising of the pass mark from 50% to 60%, which has made the diploma more valuable, yet more difficult to obtain. Students seem to have overcome this obstacle since 1989, and the graduation rate continued to rise for a number of years. As noted,

1. The probability of obtaining a first secondary school diploma is determined by grouping the first diplomas obtained at the secondary level in general and vocational education. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned.
2. Figures do not include the second or third vocational education diploma that a student may have earned, vocational education diplomas received after a general SSD, or SSDs obtained after a vocational education diploma.

however, the graduation rates for recent years are still lower than in 1995-1996 and have been steadily declining since 1998-1999.

The probability of graduating from secondary school is greater for female students than for male students. The gap between the sexes was nearly 18 percentage points in 1989-1990 and 13 percentage points in 2000-2001.

The graduation rate for female students was above 90% between 1991-1992 and 1995-1996, and has remained at this level since 1998-1999. For male students, it passed the 80% mark in 1995-1996, but dropped back to 76.1% in 2000-2001.

Table 5.2

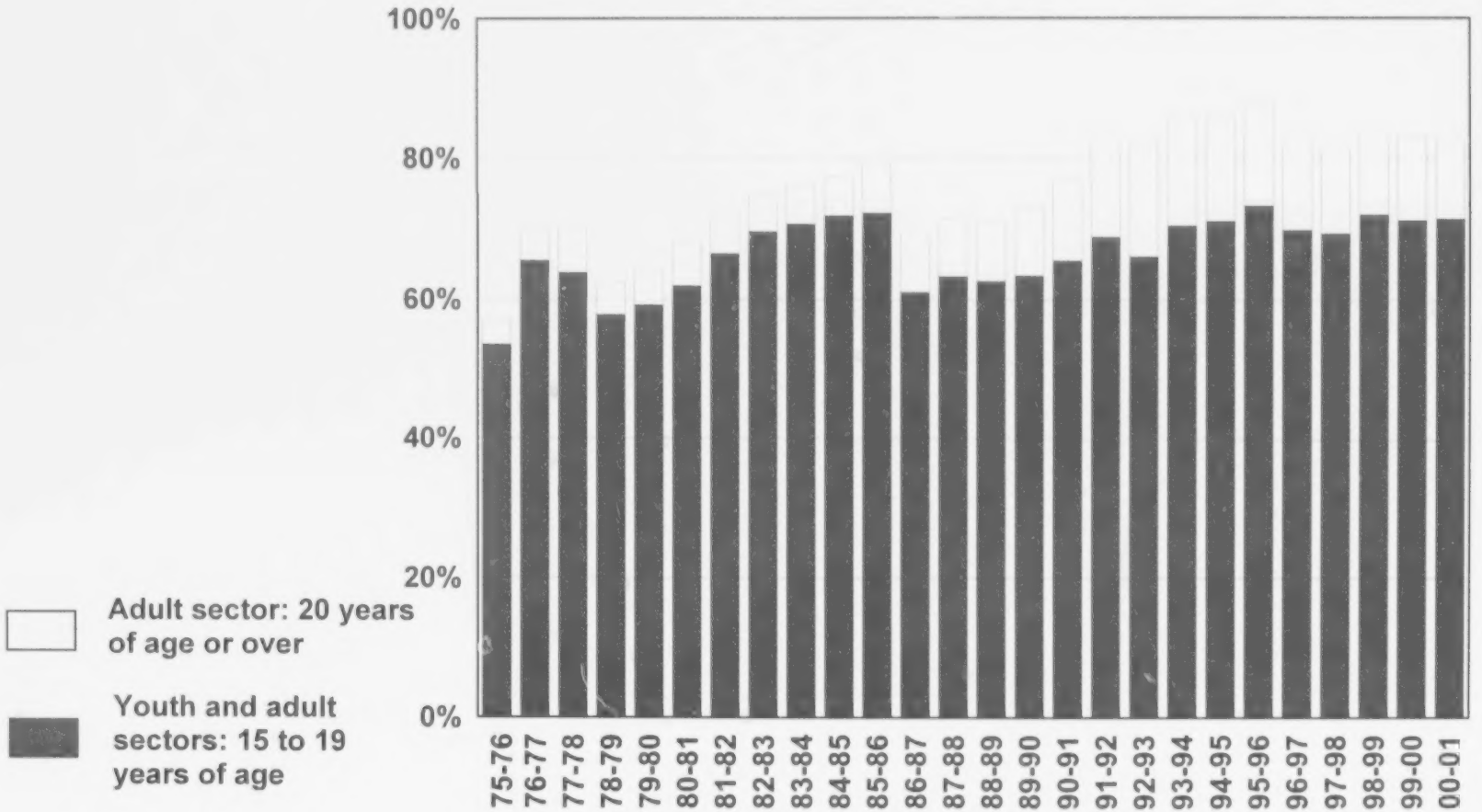
Probability of obtaining a secondary school diploma from either the youth or the adult sector, by gender (%)

	1975-1976	1985-1986	1995-1996	1998-1999	1999-2000	2000-2001[e]
Total	**57.0**	**79.2**	**88.2**	**83.7**	**83.0**	**82.5**
Adult sector: 20 years of age or over	3.5	6.8	14.6	11.3	11.5	10.9
Youth sector or before the age of 20 in the adult sector	53.5	72.3	73.5	72.3	71.5	71.7
Male	**51.2**	**73.1**	**81.5**	**77.0**	**76.4**	**76.1**
Adult sector: 20 years of age or over	3.0	6.0	14.4	11.4	12.0	11.4
Youth sector or before the age of 20 in the adult sector	48.2	67.1	67.1	65.6	64.5	64.8
Female	**63.1**	**85.6**	**95.1**	**90.6**	**89.9**	**89.3**
Adult sector: 20 years of age or over	4.0	7.6	14.8	11.2	11.1	10.3
Youth sector or before the age of 20 in the adult sector	59.1	77.9	80.3	79.4	78.8	79.0

e: Estimates

Graph 5.2

Probability of obtaining a secondary school diploma in either the youth or the adult sector (%)



5.3 Graduation From Secondary School: Regional Disparities–Youth and Adult Sectors

The regional statistics in this section[1] must be interpreted with great caution. For example, the figures vary enough for the ranking of the administrative regions, shown in Graph 5.3, to change considerably from one year to the next. However, an analysis of the statistics of the past few years seems to indicate that the regions of Saguenay–Lac-Saint-Jean, Capitale-Nationale, Bas-Saint-Laurent, Chaudière-Appalaches and Estrie are those that usually obtain the highest results, while the regions of Outaouais and Nord-du-Québec obtain the lowest results.

In 2000-2001, for 12 of the 17 administrative regions of Québec, the probability of obtaining a first secondary school diploma surpassed 80%. Only one region scored above 90%: Saguenay–Lac-Saint-Jean.

While the probability of obtaining a first secondary school diploma was on the decline in Québec as a whole between 1998-1999 and 2000-2001, the results of some administrative regions improved by several percentage points. For example, the graduation rate in Centre-du-Québec and Gaspésie–Îles-de-la-Madeleine increased by more than 4 percentage points from 1999-2000.

Graph 5.3 shows the relative share of the secondary school diplomas in the youth sector and the adult sector with respect to the graduation rate for each administrative region. For example, the probability of obtaining a first secondary school diploma for the province as a whole (82.5%) is broken down as follows: 71.7% for the youth sector and adults under the age of 20, and 10.9% for adults 20 years of age or over. The graduation rate for adults 20 years of age or over varies from one region to another.

1. Refers to the probability of obtaining a first secondary school diploma. The probability of obtaining a first secondary school diploma is determined by grouping the first diplomas obtained at the secondary level in general and vocational education. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned.

Table 5.3

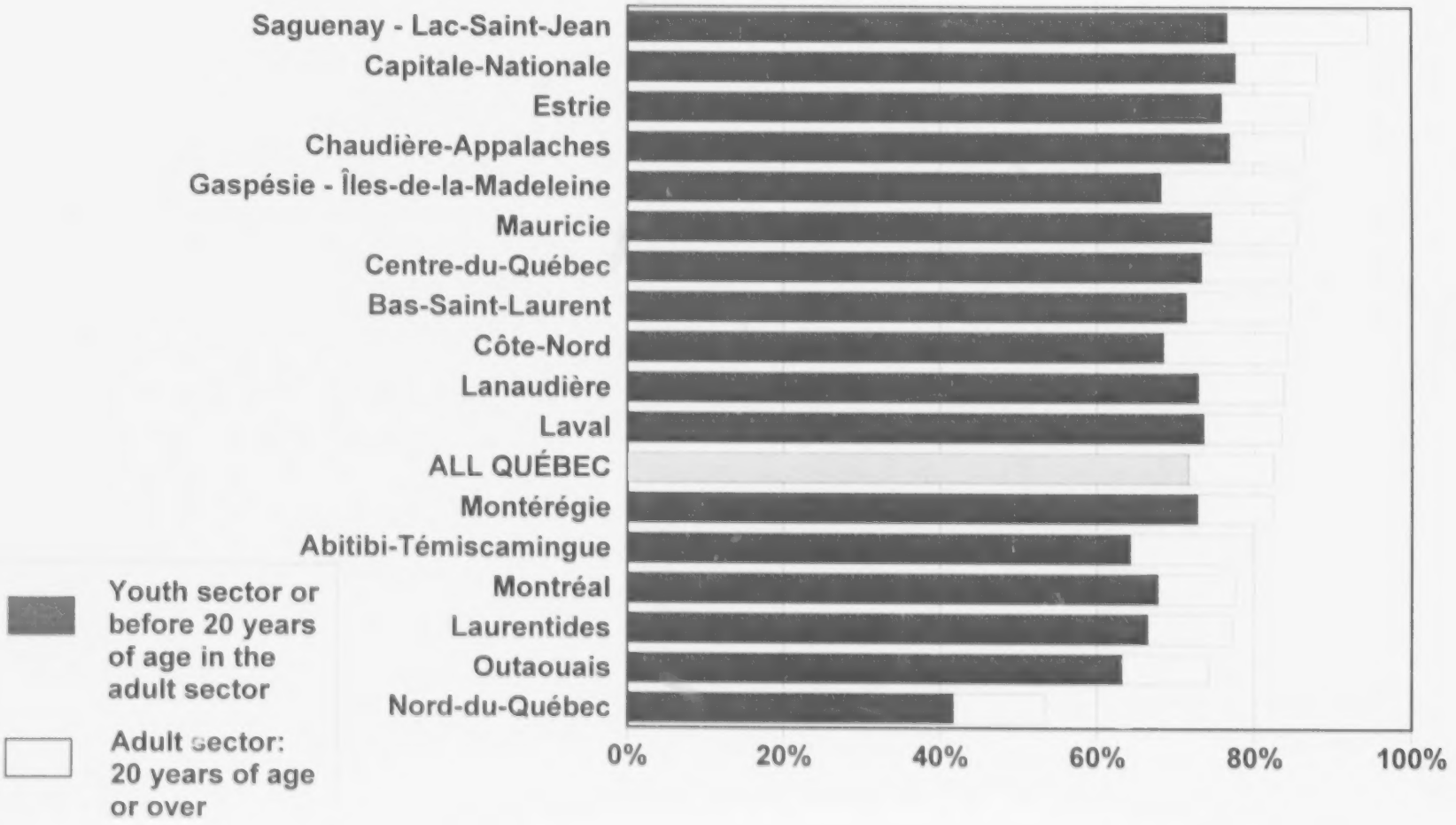
Probability of obtaining a first secondary school diploma, by administrative region (%)

	1990-1991			2000-2001[e]		
	Youth sector or before the age of 20 in the adult sector	Adult sector: 20 years of age or over	Total	Youth sector or before the age of 20 in the adult sector	Adult sector: 20 years of age or over	Total
Gaspésie–Îles-de-la-Madeleine	61.2	19.2	80.4	68.2	17.6	85.7
Bas-Saint-Laurent	70.1	17.4	87.5	71.4	13.2	84.6
Saguenay–Lac-Saint-Jean	66.2	19.8	86.0	76.6	17.9	94.6
Capitale-Nationale	72.8	11.6	84.4	77.7	10.3	88.1
Chaudière-Appalaches	72.0	11.6	83.5	76.9	9.5	86.5
Mauricie	66.5	10.4	77.0	74.6	10.9	85.5
Centre-du-Québec	68.2	13.1	81.3	73.3	11.3	84.6
Estrie	69.8	12.7	82.5	75.9	11.2	87.2
Montérégie	66.8	8.7	75.5	72.8	9.5	82.2
Montréal	64.7	9.1	73.8	67.8	9.8	77.5
Laval	66.0	9.3	75.3	73.6	9.9	83.4
Lanaudière	64.0	10.7	74.7	72.9	10.9	83.7
Laurentides	61.0	9.2	70.2	66.5	10.7	77.1
Outaouais	54.2	13.9	68.1	63.2	11.0	74.3
Abitibi-Témiscamingue	54.2	18.3	72.5	64.3	15.4	79.7
Côte-Nord	56.5	15.2	71.7	68.5	15.7	84.2
Nord-du-Québec	43.3	21.0	64.4	41.7	11.7	53.4
All Québec	**65.6**	**11.2**	**76.8**	**71.7**	**10.8**	**82.5**

e: Estimates

Graph 5.3

Probability of obtaining a first secondary school diploma, by administrative region: 2000-2001 (%)



5.4 Graduation From Secondary Vocational Education–Youth and Adult Sectors

Based on behaviours observed in 2000-2001, 25 out of 100 young Quebeckers can expect to obtain a vocational education diploma[1] in secondary school.[2] This group includes 17 persons who already have a first Secondary School Diploma (SSD) in general education. Since the beginning of the vocational education reform in 1987-1988, a growing number of persons obtaining a vocational diploma are doing so after earning a diploma in general education.

The proportion of a generation of students obtaining a secondary school vocational education diploma was 24.5% in 2000-2001. This is the highest rate ever recorded.

Moreover, the probability of obtaining a first secondary school diploma from the youth sector or before the age of 20 in the adult sector in vocational education was 2.6% in 2000-2001; this rate was higher than 16% in 1977-1978. Although this rate has risen slightly (but almost steadily) since 1994-1995, students in the youth sector or before the age of 20 in the adult sector who obtain a first secondary school diploma (71.7% in 2000-2001) are most likely to do so in general education (Section 5.2).

The very nature of vocational education diplomas has also changed. Short vocational programs have been phased out in favour of general education. The basic difference between the Diploma of Vocational Studies (DVS) and its predecessor, the Long Vocational Diploma, is that the DVS deals exclusively with vocational education, since all the components of the vocational programs dealing with general education have been transferred to the SSD.

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1. The diplomas considered here are the Short Vocational Diploma, the Long Vocational Diploma, the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS–known as the Secondary School Vocational Diploma [SSVD] prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and other secondary school diplomas (SSDs) with mention of vocational specialty.
2. Refers to the probability of obtaining a first secondary school diploma. This rate is determined by grouping only the first secondary school diplomas in vocational education. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned in vocational education.

The difference between male and female students is much less pronounced than in general education. Nevertheless, vocational education represents a larger share of the graduation rate for male students (26.9%) than for female students (22.9%).

In 1999-2000, 8 674 vocational education diplomas[3] were granted to students in the youth sector or to students under the age of 20 in the adult sector. The Ministère's objective was to award 18 500 diplomas before 2000.

3. All vocational education diplomas are considered here, be they the first, second, third, and so on, earned by a student. The other statistics in this section deal only with the first vocational education diploma, which may be the first diploma earned at the secondary level or the diploma earned after having obtained an SSD in general education.

Table 5.4

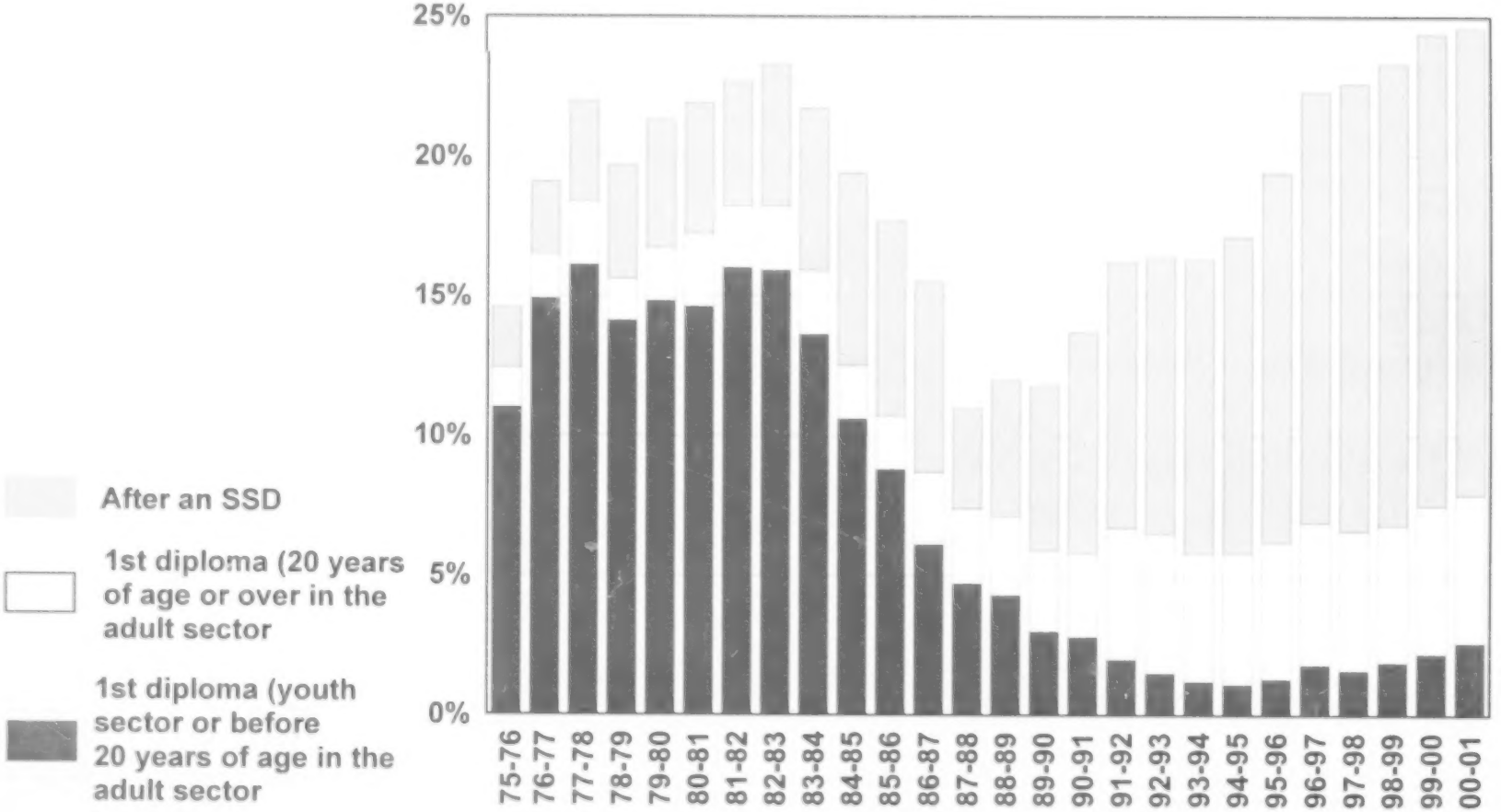
Probability of obtaining a vocational education diploma, by sector, age and gender (%)

	1975-1976	1985-1986	1995-1996	1998-1999	1999-2000	2000-2001[e]
Total	**14.6**	**17.6**	**19.4**	**23.3**	**24.4**	**24.5**
Male	12.0	17.0	21.0	24.7	26.3	26.9
Female	17.2	18.4	17.8	21.8	22.4	21.9
First diploma	12.3	10.7	6.2	6.8	7.6	7.8
After an SSD[1]	2.2	7.0	13.2	16.5	16.9	16.7
Youth sector or before the age of 20 in the adult sector	**13.0**	**15.1**	**4.7**	**6.9**	**7.4**	**7.9**
First diploma	11.0	8.8	1.3	1.9	2.2	2.6
After an SSD[1]	2.1	6.4	3.5	5.0	5.1	5.4
Adult sector: 20 years of age or over	**1.5**	**2.5**	**14.7**	**16.4**	**17.1**	**16.7**
First diploma	1.4	1.9	4.9	4.9	5.3	5.3
After an SSD[1]	0.2	0.6	9.7	11.5	11.7	11.4

e: Estimates
1. SSD: Secondary School Diploma

Graph 5.4

Probability of obtaining a vocational education diploma, by sector and age (%)



5.5 Graduation From Secondary School in OECD Countries

In 2001, the Organisation for Economic Co-operation and Development (OECD) published *Education at a Glance*, which contains indicators on graduation from secondary school in OECD countries in 1999.

In 1999, the probability of obtaining a secondary school diploma[1] in Québec was 83%, 4 percentage points higher than the OECD average.

Table 5.5 compares the situation in Québec with that in a number of industrialized OECD nations with respect to graduation from secondary school. In 1999, the secondary school graduation rate in Québec (83%) was higher than the average for the OECD countries.

Twelve OECD countries out of 20 had higher secondary school graduation rates than Québec. Québec's rate was lower than that of Japan, Hungary, Germany, the Netherlands, Korea, Denmark, Finland, Ireland, France, Switzerland and the Belgian Flemish community, but higher than that of Iceland, the United States, Sweden, Italy, Spain, Greece and the Czech Republic.

In most OECD countries, female students were more likely to graduate than male students. In Québec, there was a difference of 14 percentage points between the graduation rates of these two groups. A significant disparity in favour of female students was also observed in Greece (18 percentage points), Ireland and the Czech Republic (15 percentage points), Finland and Italy (10 percentage points), and the Netherlands and Sweden (7 percentage points). A higher graduation rate for male students was observed in only two OECD countries, Switzerland and the United States. The rate for male students in Québec was 77%, 1 percentage point above the OECD average, while the rate for female students in Québec was 90%, or 8 percentage points above the OECD average.

There are far more students in general education in Québec than there are in vocational education, and this holds true for both male and female students. With a probability of obtaining a diploma in general education of 77%, Québec ranks second among the OECD countries, after Ireland (78%), but before Japan (69%) and the other OECD countries.

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1. For Québec, this rate was obtained by dividing the number of "first diplomas" awarded in 1999 by the number of 17-year-olds in Québec (the age at which a secondary school diploma is generally awarded in Québec).

The reverse is true in vocational education. Québec's graduation rate is 25%, while the average for the OECD countries is 45%. A number of countries obtained very high results in vocational education, that is, Hungary (71%), Finland and France (67%), Italy (65%), the Belgian Flemish community (64%), Germany and Denmark (59%), and the Netherlands (56%). The results in vocational education are better than those in general education in half of the OECD countries.[2]

The probability of obtaining a diploma in vocational education in Québec is barely higher for male students than for female students. It is the sector of activity that differs for female and male students.

2. The differences between the education systems in the various OECD countries explain the fluctuations observed in the probability of obtaining diplomas in secondary school general and vocational education.

Table 5.5

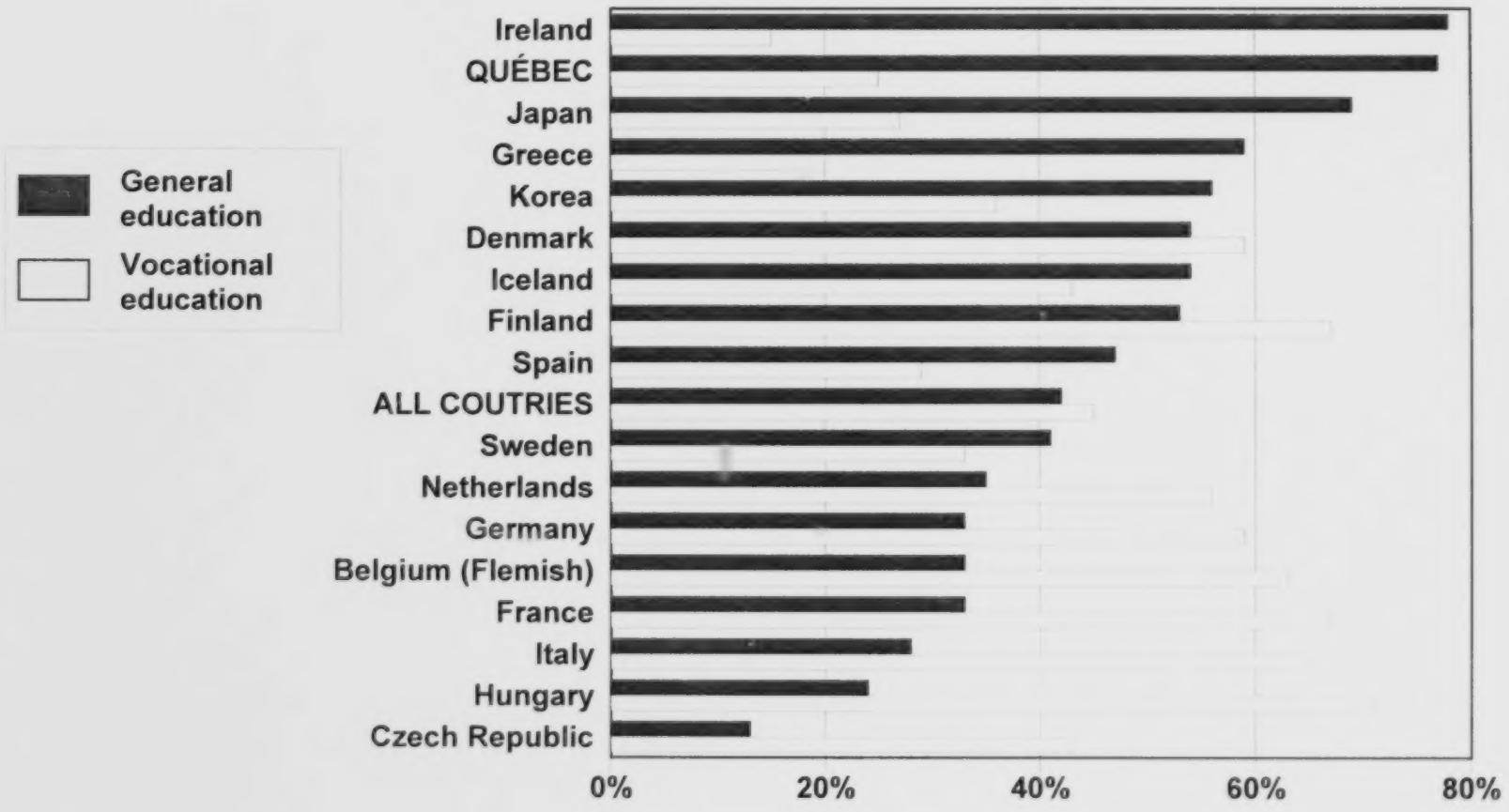
Probability of obtaining a secondary school diploma, by gender and type of program: OECD countries, 1999 (%)

	Total (without double counting)			General education		Vocational education	
	M + F	Male	Female	M + F	Female	M + F	Female
Japan	95	92	97	69	73	27	26
Hungary	92	91	93	24	30	71	65
Germany (1998)	92	90	94	33	36	59	58
Netherlands	92	88	95	35	39	56	56
Korea	91	91	91	56	53	36	38
Denmark	90	82	98	54	66	59	63
Finland	89	84	94	53	64	67	71
Ireland (1998)	86	79	94	78	85	15	16
France	85	84	86	33	39	67	61
Switzerland	83	86	81	N/A	N/A	N/A	N/A
Belgium (Flemish)	83	82	85	33	38	63	64
Québec	**83**	**77**	**90**	**77**	**86**	**25**	**23**
Iceland	82	79	84	54	65	43	32
United States	78	79	77	N/A	N/A	N/A	N/A
Sweden	74	71	78	41	45	33	31
Italy	73	69	79	28	37	65	63
Spain	73	67	79	47	53	29	31
Greece	67	58	76	59	62	20	16
Czech Republic	52	44	59	13	15	43	49
Average	**79**	**76**	**82**	**42**	**48**	**45**	**43**

N/A: Data not available

Graph 5.5

Probability of obtaining a secondary school diploma, general and vocational education: Québec and OECD countries, 1999



5.6 Graduation From College

In 1999-2000, the proportion of a generation who could expect to obtain a first college diploma, be it a Diploma of College Studies (DCS) or any other diploma, was 38.1%. This is an increase of 15.9 percentage points since 1975-1976, when it stood at 22.2%. The proportion of a generation who are admitted to college (see Section 2.8) and the proportion of students who obtain a diploma upon leaving college (see Sections 3.3 and 3.4) are combined to produce this result.

While the proportion of young female Quebeckers who could expect to obtain a DCS had risen by roughly 9 percentage points (from 39.2% to 47.9%) since 1985-1986, the proportion of young male Quebeckers who could expect to obtain a DCS dropped slightly and stood at 28.9% in 1999-2000.

The probability of women obtaining a diploma (DCS or other) was approximately one and a half times higher than for men (47.9% compared with 28.9%). The gap between the sexes grew steadily during the 1980s and 1990s. In 1975-1976, the probability of obtaining a college diploma[1] was already 2.7 percentage points higher for women than for men. Since then, the probability has continued to rise more sharply for women, and the gap is now almost 20 percentage points. In fact, in the past 15 years or so, it is virtually only among women that the probability of obtaining a college diploma has grown.

The greatest growth occurred with the pre-university DCS, as the probability of obtaining this type of diploma rose from 13.5% to 23.3% between 1975-1976 and 1999-2000, an increase of 9.8 percentage points, compared with a rise of 7.3 percentage points for the technical DCS over the same period. In the latter case, however, the increase was relatively greater, as it was almost double. In the past two years, however, only in technical education did the probability of obtaining a diploma increase (0.6 percentage points), while it dropped by 1.9 percentage points for a pre-university DCS.

For both types of programs, the number of women graduating between 1975-1976 and 1999-2000 exceeded the number of men, and the gap between the sexes continued to widen. The probability of women obtaining a pre-

1. The probability of obtaining a first college diploma measures the proportion of a generation that stays in school until a college diploma is earned.

university DCS increased by 17.4 percentage points, compared with a rise of 2.6 for men. On the other hand, for both sexes the probability of obtaining a technical DCS grew more modestly (in absolute value), although the increase for men was more pronounced in technical education (6.5 percentage points) than in pre-university education (2.6 percentage points). Women were ahead of men by 4.0 percentage points in 1975-1976, and by 5.8 percentage points in 1999-2000.

The Ministère's objective for the year 2010 is a college graduation rate of 60% for young Quebeckers; in 1999-2000, the rate was 38.1%. The gap between the actual rate and the objective is greater than the increase recorded over the past 24 years, since the probability of obtaining a DCS in1975-1976 was 21%.

Table 5.6

Probability of obtaining a first college diploma, by gender and type of education (%)

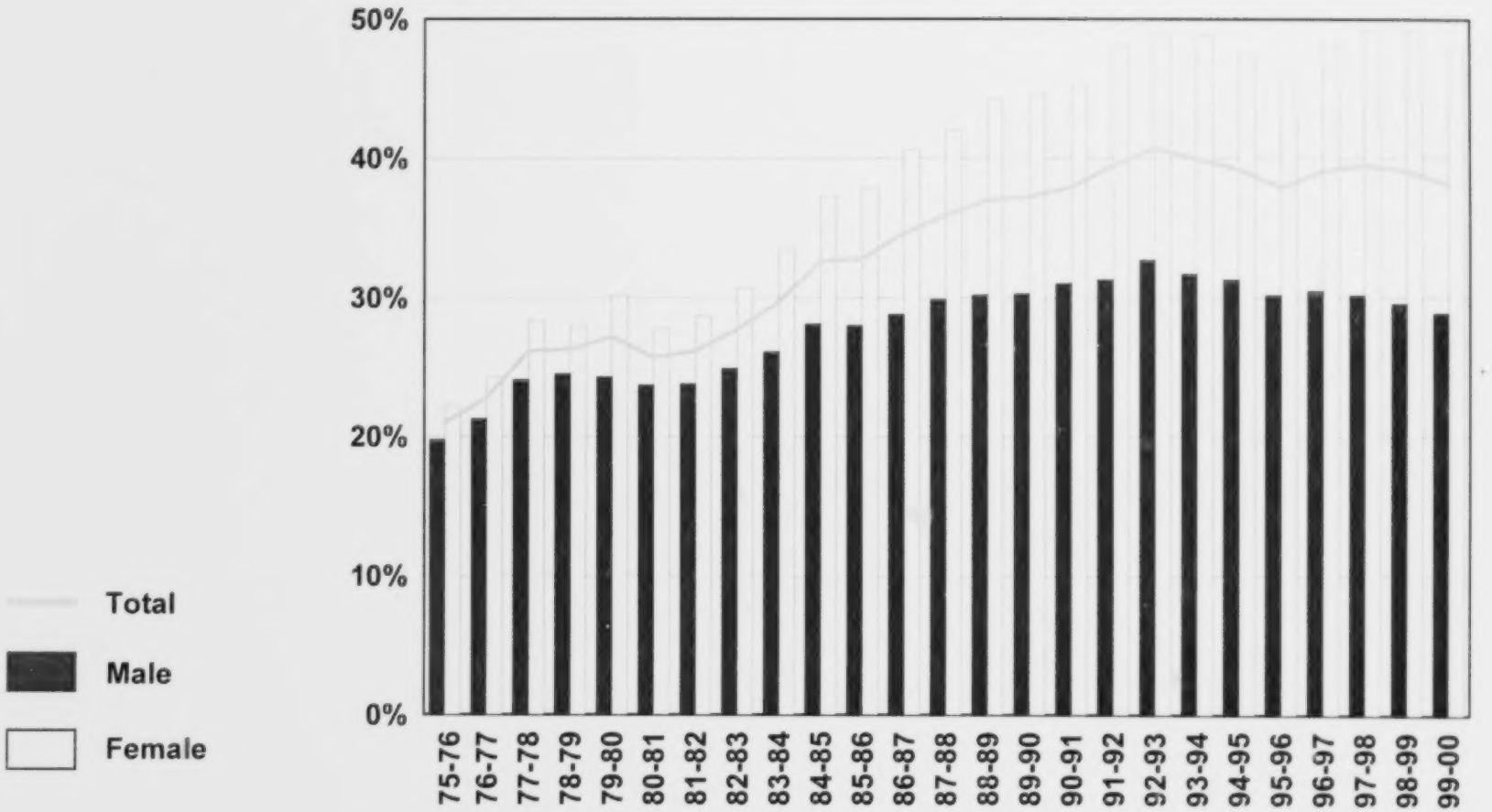
	1975-1976	1985-1986	1995-1996	1997-1998	1998-1999	1999-2000[e]
Male						
All diplomas[1]	20.8	29.7	30.5	30.3	29.6	28.9
DCS[2]	**19.8**	**28.0**	**30.2**	**30.2**	**29.6**	**28.9**
Pre-university education	14.3	18.7	19.2	19.0	17.9	16.9
Technical education	5.5	9.0	10.7	11.2	11.7	12.0
Female						
All diplomas[1]	23.5	39.2	46.4	49.2	49.2	47.9
DCS[2]	**22.2**	**37.9**	**46.0**	**49.2**	**49.2**	**47.9**
Pre-university education	12.7	23.6	29.6	31.8	31.4	30.1
Technical education	9.5	13.9	16.1	17.4	17.8	17.8
Total						
All diplomas[1]	22.2	34.3	38.3	39.5	39.1	38.1
DCS[2]	**21.0**	**32.8**	**37.9**	**39.5**	**39.1**	**38.1**
Pre-university education	13.5	21.1	24.3	25.2	24.5	23.3
Technical education	7.5	11.4	13.4	14.2	14.7	14.8

e: Estimates

1. The diplomas considered here are the Diploma of College Studies (DCS), the Attestation of College Studies (ACS) until 1984, the Certificat d'études collégiales (CEC–certificate of college studies) and the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies). Since 1994, there have been no new enrollments in programs leading to a CEC or to a DPEC.
2. These figures include DCSs without mention of vocational specialty.

Graph 5.6

Probabilty of obtaining a first college diploma, by gender (%)



5.7 Graduation From University[1]

In 2000, the probability of obtaining a bachelor's degree once again declined after a brief rise in 1999. It dropped 2.4 percentage points since its peak of 29.0% in 1996, to finally settle at 26.6%.

Based on behaviours observed in 2000, more than one quarter of young Quebeckers (26.6%) can expect to obtain a bachelor's degree. In the past several years, more women than men have enrolled in university (see Section 2.10). The situation for the two sexes has changed drastically since 1976, when the probability of obtaining a bachelor's degree was 13.1% for women and 16.7% for men. In 1983, the probability for both sexes was more similar and, since then, the increase in probability has been in women's favour. In 2000, the probability of obtaining a bachelor's degree was 31.9% for women and 21.5% for men, or an increase of 18.8 percentage points for women and 4.8 percentage points for men.

The Ministère's objective for the year 2010 is a university graduation rate of 30% for young Quebeckers. The current rate (26.6%) shows a slight decline after a series of drops in university enrollment between 1992-1993 and 1997-1998 (see Section 2.10). The recovery of the enrollment rate in the past three years appears to herald an end to the drop in the probability of obtaining a bachelor's degree. The probability is nevertheless higher in Québec than the average of 24.3% recorded for member countries of the Organisation for Economic Co-operation and Development (OECD) in 1999 (see Section 5.9).

With regard to obtaining a master's degree, the results have continued to increase and reached 7.6% for women and 6.7% for men. For both sexes, the rate of 7.1% represents close to triple the 1976 rate of 2.7%. An increase in enrollment at the master's level (see Section 2.10) points to a continued increase in the number of master's degrees awarded for at least a few years to come. The difference between the sexes here is much less significant (0.9 percentage points) than for the bachelor's degree, but could widen in favour of women, given the growing margin in earning a bachelor's degree. Since 1976, the situation of men and women has reversed; whereas the initial gap was 1.6 percentage points in favour of men, the probability of women obtaining a master's degree has climbed from 1.9% to 7.6%, moving ahead of the probability for men in 1993.

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1. Only university degrees (bachelor's, master's and doctoral degrees) awarded by Québec universities are considered here. Degrees earned by Quebeckers outside the province are not taken into account.

Doctorates are still only earned by a minute fraction (1.1%) of the population. This last phase in the education system is perhaps the only one in which men continue to outnumber women. Figures are, however, minimal for both sexes: 1.2% of men obtain a doctorate, compared with 0.9% of women. In view of developments at the master's level, the pool of aspiring doctoral candidates is also likely to increase for some time to come.

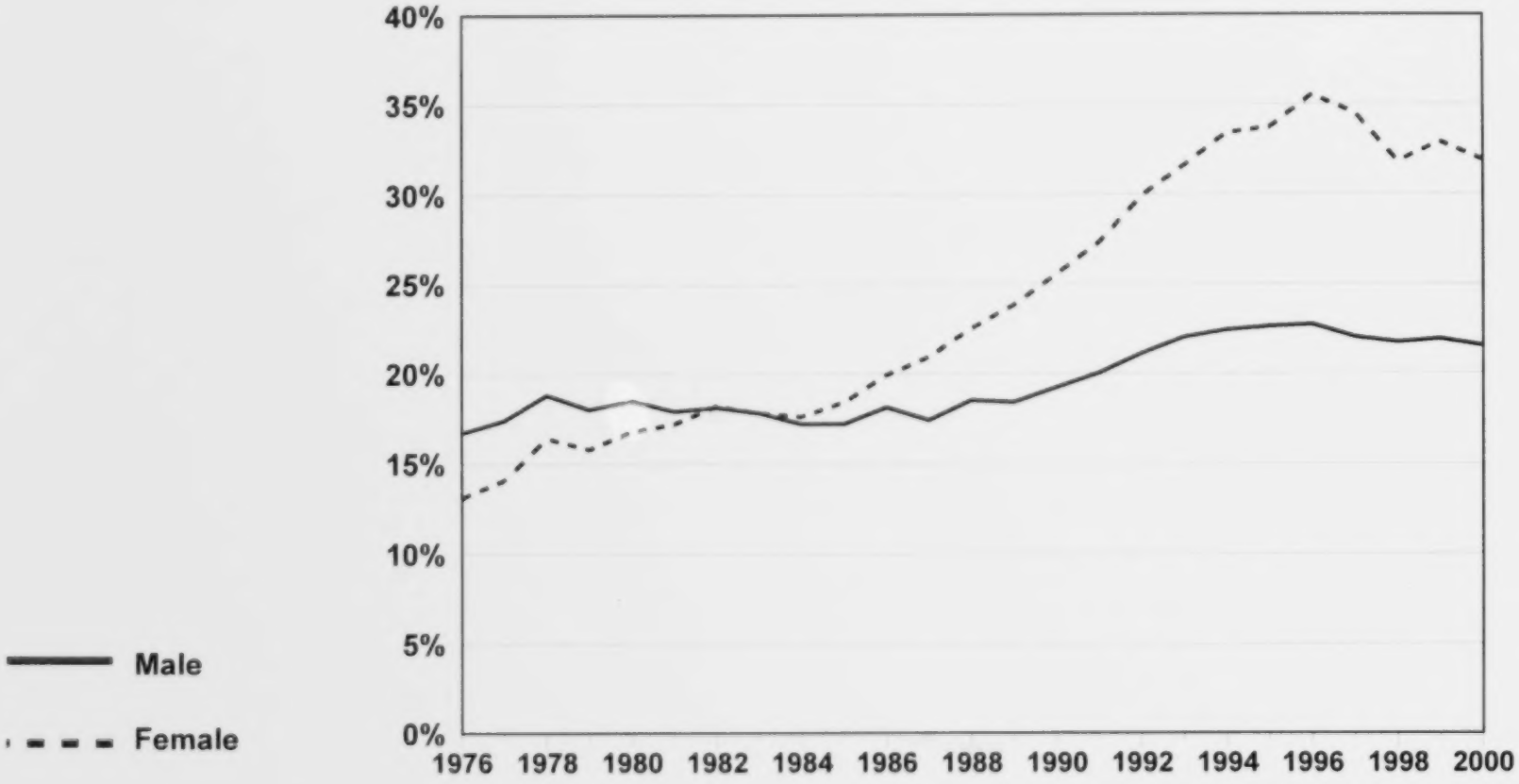
Table 5.7

Probability of obtaining a university degree, by gender (%)

	1976	1986	1991	1996	1999	2000
Bachelor's degree	**14.9**	**19.0**	**23.6**	**29.0**	**27.3**	**26.6**
Male	16.7	18.1	20.0	22.7	21.9	21.5
Female	13.1	19.9	27.3	35.5	32.9	31.9
Master's degree	**2.7**	**3.9**	**4.4**	**6.0**	**6.5**	**7.1**
Male	3.5	4.4	4.4	5.8	6.1	6.7
Female	1.9	3.4	4.3	6.3	6.9	7.6
Doctorate	**0.4**	**0.5**	**0.6**	**0.9**	**1.0**	**1.1**
Male	0.6	0.7	0.9	1.2	1.3	1.2
Female	0.2	0.3	0.4	0.6	0.8	0.9

Graph 5.7

Probability of obtaining a bachelor's degree, by gender (%)



5.8 University Degrees by Field of Study[1]

In 2000, the largest proportion (27.9%) of bachelor's, master's and doctoral degrees issued by Québec universities were earned in the humanities, followed by business administration (20.6%), education (11.2%), engineering and architecture (10.2%), natural sciences (8.5%) and health sciences (8.4 %). Social sciences represented 5.1%, mathematics and computer sciences, 4.7%, and law, 3.4% of the degrees earned.

In 2000, the proportion of degrees earned in engineering and architecture, as well as mathematics and computer science, accounted for 14.9% of all the bachelor's, master's and doctoral degrees awarded. In these fields of study, more men (76.2%) obtained degrees. However, more women earned degrees in the other fields of study (except business administration), as well as in all fields combined.

The majority of degree holders are women (56.7%). In 2000, women earned 76.4% of the degrees in education, 75.4% in social sciences, 72.6% in health sciences, 65.7% in the humanities, 57.2% in law and 53.4% in natural sciences. Men earned 77.7%[2] of the degrees in engineering and architecture, 72.5% in mathematics and computer science, and 52.6% in business administration.

Compared with 1990, the number of degrees issued by universities in 2000 rose by 16.1%. This percentage is the result of a 23.4% increase in the number of degrees awarded to women and a 7.8% increase for men.

In the past ten years, the distribution of the degrees awarded according to field of study has changed. Between 1990 and 2000, for example, the number of degrees in business administration has dropped (by 2.0 percentage points) as has, to a lesser extent, the number of degrees in engineering and architecture (by 0.9 percentage points), in health sciences (by 0.3 percentage points) and in law (by 0.1 percentage points).

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1 This refers to students who earned a university degree (bachelor's, master's or doctoral degree) during the year in question.
2. The proportion of degrees in engineering and architecture earned by women rose from 16.8% in 1990 to 22.4% in 2000.

At the other extreme, the number of degrees awarded in the humanities has risen by 1.6 percentage points; natural sciences, and mathematics and computer science, by 0.7 percentage points; social sciences, by 0.2 percentage points; and education, by 0.1 percentage points.

For member countries of the Organisation for Economic Co-operation and Development (OECD),[3] degrees earned in the sciences (life sciences, physical sciences and agriculture, mathematics and computer science, engineering, and manufacturing and construction activities) accounted for 26.3% of the total number of degrees earned in 1999; in Québec (natural sciences, mathematics and computer science, engineering and architecture), this proportion was 23.4% in 2000. The proportion of degrees in social sciences, law and business administration was 34.9% for the OECD countries in 1999 and 29.1% for Québec in 2000, whereas the proportion of degrees in health sciences was 11.5% for the OECD countries in 1999 and 8.4% for Québec in 2000. Degrees in the humanities, literature and education represented 26.6% for the OECD countries and 39.1% for Québec.

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3. Source: OECD, *Education at a Glance-OECD Indicators* (Paris: 2001). Any comparison between the results presented in this section and those published by the OECD must take into account the different methodologies used to obtain the results.

Table 5.8

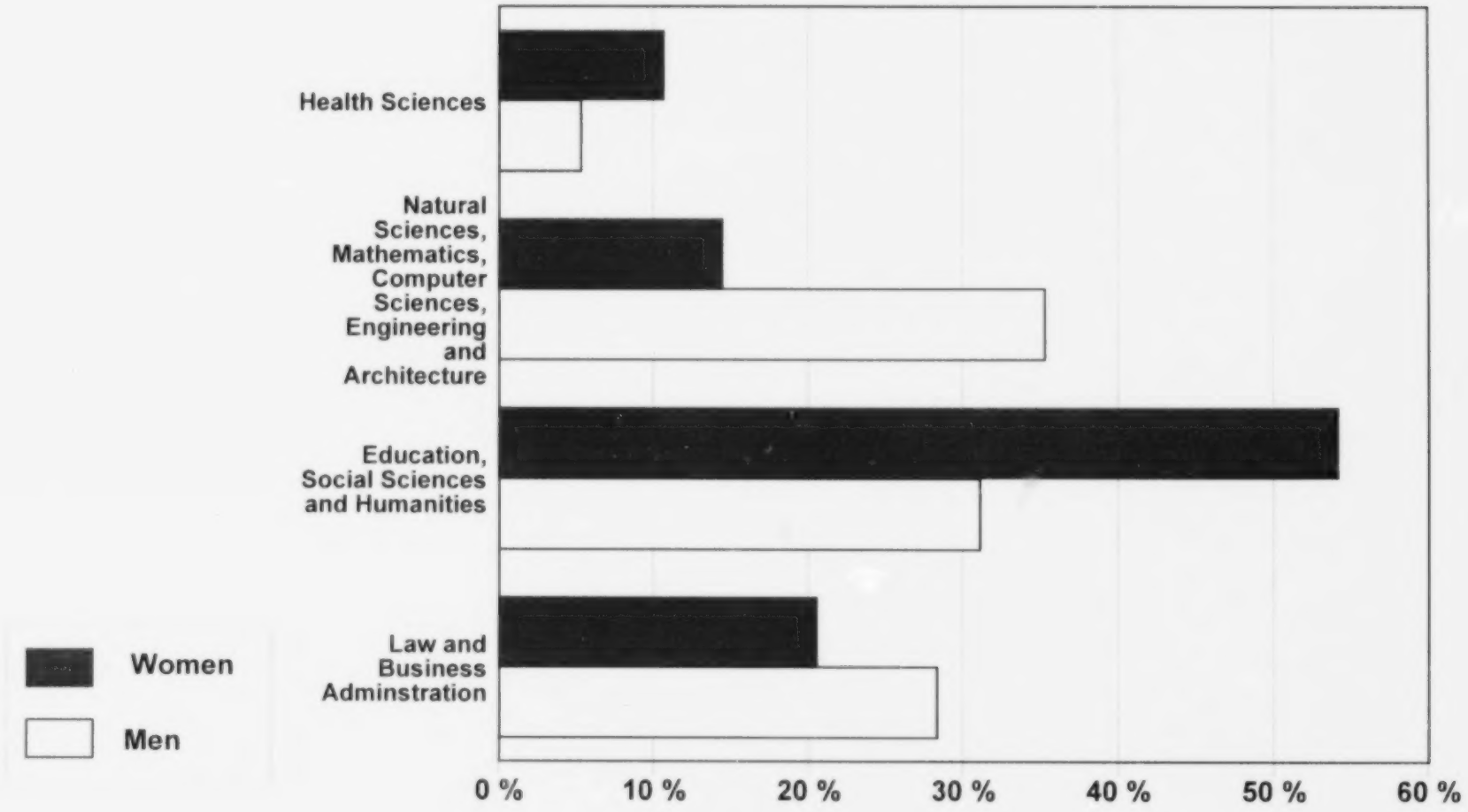
Distribution of university degrees, by field of study and gender[1] (%)

	1990	1993	1995	1997	1998	1999	2000
Health sciences	8.7	8.7	8.9	9.3	8.8	9.1	8.4
Natural sciences	7.8	6.7	6.5	7.5	8.0	8.0	8.5
Mathematics and computer science	4.0	3.8	3.6	3.8	3.8	4.0	4.7
Engineering and architecture	11.1	10.6	11.0	10.1	10.2	10.2	10.2
Law	3.5	3.6	3.2	3.3	3.4	3.1	3.4
Business administration	22.6	22.6	20.0	18.6	20.1	19.7	20.6
Education	11.1	12.8	15.1	13.2	10.3	12.4	11.2
Humanities	26.3	26.6	27.3	29.1	30.0	28.4	27.9
Social sciences	4.9	4.6	4.4	5.1	5.4	5.1	5.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Female	53.4	55.3	56.4	57.6	56.6	57.0	56.7
Male	46.6	44.7	43.6	42.4	43.4	43.0	43.3

1. Only holders of bachelor's, master's or doctoral degrees who obtained their degree in the year in question are considered.

Graph 5.8

Distribution of university degrees, by field of study and gender: 2000 (%)



5.9 Graduation From University in OECD Countries

In 2001, the Organisation for Economic Co-operation and Development (OECD) published *Education at a Glance*, which contains indicators on graduation from university in OECD countries in 1999.

In 1999, the probability of obtaining a first bachelor's degree in Québec was 27.3%, and the average observed for the OECD countries was 24.3%.

Table 5.9 compares the situation in Québec with that in a number of industrialized OECD nations with respect to graduation from university. In 1999, the probability of obtaining a bachelor's degree was 27.3% in Québec, that is, 3 percentage points above the OECD average. In 1998, the gap was 3.4 percentage points and in 1996, 5 percentage points.

In 1999, 11 of the 27 OECD countries had a higher probability of obtaining a first undergraduate (bachelor's) degree than Québec, that is, New Zealand (37.3%), the United Kingdom (36.8%), Norway (33.9%), Finland (33.9%), the Netherlands (33.5%), the United States (33.2%), Spain (30.3%), Canada (29.3%) and Japan (29.0%). In most countries, however, the probability of obtaining a first degree equivalent to Québec's bachelor's degree was lower than in Québec.

Québec awarded 59% of its bachelor's degrees (including first professional degrees) to women, while the comparable percentages were 63% for New Zealand, 61% for Sweden, 59% for Canada, 58% for France and Finland, 56% for the United States and 55% for Italy. Conversely, Japan awarded only 35% of its undergraduate degrees to women, while the comparable percentages were 41% for Switzerland and 45% for Germany.

For master's degrees, the rate observed for Québec was 6.5%, ranking it ninth after Poland (18.2%), New Zealand (15.9%), the United States (14.3%), Ireland (13.1%), the United Kingdom (12.7%), Denmark (9.1%), Australia (8.5%) and France (6.7%). Québec, however, awarded more master's degrees than the Flemish community in Belgium, Canada, Norway, Italy, Korea, Japan and Sweden.

Québec awarded 52% of its master's degrees to women, while the comparable percentages were 89% for Sweden, 70% for the Netherlands, 66% for Iceland and 60% for Italy. Conversely, Japan awarded only 23% of its master's degrees to women, while the comparable percentages were 26% for Switzerland, 30% for Korea, and 37% for Turkey.

The probability of obtaining a doctorate remained stable in Québec at 1.0%, a rate equivalent to the OECD average. Switzerland (2.6%), Sweden (2.4%), Finland (1.7%) and Germany (1.8%) posted the highest university graduation rates from postgraduate research programs.

Québec awarded 39% of its doctorates to women, while the comparable percentages were 41% for France, 42% for the United States, 45% for Finland and 36% for Canada. The highest percentages of doctorates awarded to women were observed in Italy and Finland (45%), Ireland and Spain (44%) and New Zealand (42%). The lowest percentages were observed in Japan (19%) and Korea (20%).

Graph 5.9 gives the percentages of university degrees (bachelor's, master's or doctoral degrees) awarded to women in Québec and some OECD countries in 1999. In this graph, 50% indicates that women and men were awarded university degrees in the same proportion. Countries are ranked in increasing order of percentage of first university degrees awarded to women.

Table 5.9

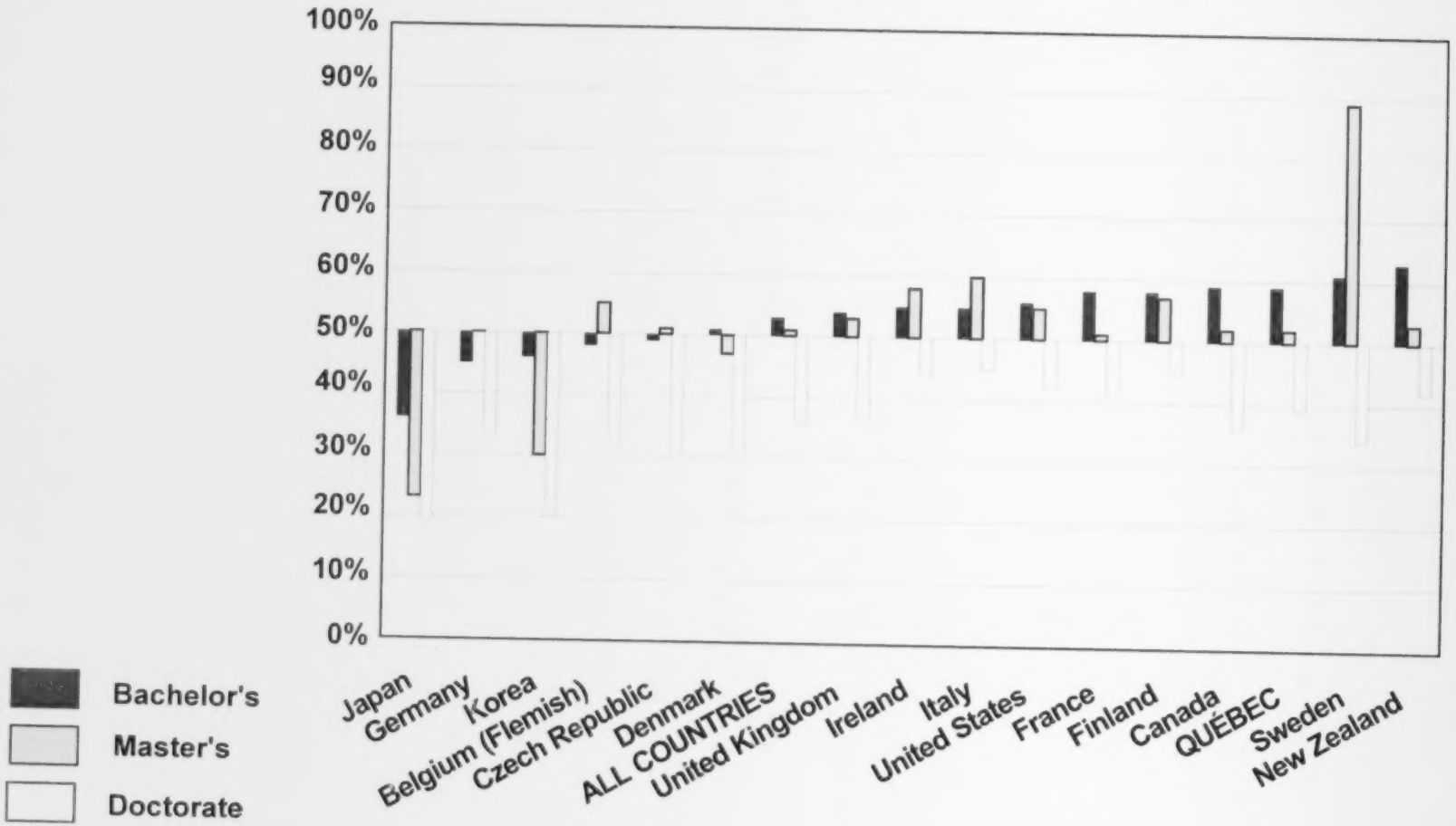
Probability of obtaining a university degree in Québec and certain OECD countries, 1999 (%)

	Bachelor's degree	Master's degree	Doctorate
New Zealand	37.3	15.9	0.8
United Kingdom	36.8	12.7	1.3
Norway	33.9	4.6	1.0
Finland	33.9	0.7	1.7
Netherlands	33.5	1.2	1.0
United States	33.2	14.3	1.3
Spain	30.3	N/A	0.5
Canada	**29.3**	**4.7**	**0.8**
Japan	29.0	2.6	0.6
Québec	**27.3**	**6.5**	**1.0**
Sweden	27.2	0.6	2.4
Korea	27.1	3.0	0.6
Australia	27.0	8.5	1.2
France	24.9	6.7	1.2
Belgium (Flemish)	17.8	5.1	0.6
Italy	16.0	3.3	0.4
Germany	16.0	N/A	1.8
Mexico	11.2	N/A	N/A
Czech Republic	10.8	1.7	0.5
Denmark	6.2	9.1	0.6
Average	**24.3**	**5.4**	**1.0**

N/A: Data not available

Graph 5.9

Percentage of university degrees awarded to women: Québec and some OECD countries, 1999



6.1 Employment Trends by Level of Education

The increase of 38 000 jobs in 2001 over 2000 has primarily benefited individuals who have a postsecondary diploma or university degree.

Since the early 1990s, the structure of the labour market in Québec and in Canada as a whole has been changing in a way that benefits workers with more education. Indeed, the employment situation has been more favourable for those with a postsecondary diploma or university degree,[1] both during the recession of the early 1990s and in the period since 1993, when employment has been on the rise. The data presented in this section is from Statistics Canada. The levels of education considered here correspond to the highest level of education attained by employed workers in a given year.[2] It should be noted, however, that these levels do not necessarily correspond to employment requirements.

In Québec, it was only in 1995 that the job losses suffered in the last recession were absorbed. In 2001,[3] although there were 334 000 more jobs than in 1990, this growth in employment did not benefit all workers. Those with only a secondary school diploma or who did not finish secondary school suffered job losses, while those who successfully completed some postsecondary studies or graduated from college or university made gains. Thus, employed individuals with a university education were more numerous (by 265 000) in 2001 than in 1990, for an increase of 63.7%. Those with a postsecondary diploma held 372 000 more jobs (40.9%) in 2001 than in 1990. Those with only some postsecondary studies were more likely to hold jobs in 2001 than in 1990 (30 000 more), for an increase of 11.7%. In short, those with a postsecondary or university education held 667 000 more jobs in 2001 than in 1990.

The situation was different for those with only a secondary education, whether or not they obtained a diploma. In all, these individuals held 333 000 fewer jobs in 2001 than in 1990. Fewer people who left school after obtaining a secondary school diploma held jobs in 2001 than in 1990 (32 000 fewer), representing a decrease of 5.1% since 1990.

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1. According to Statistics Canada terminology, elementary school includes the first two years of secondary education. Postsecondary studies include all programs leading to diplomas and certificates in the trades (including the Diploma of Vocational Studies) and exclude university studies. The university sector begins with programs leading to at least a bachelor's degree.
2. The level of education attained by a person may increase over time. It is therefore possible that the same job, held by the same person, will be considered to be held by a person with a higher level of education in a given year than in an earlier year.
3. The figures for 2001 are an average of the first 10 months of that year.

The number of individuals who were employed and whose highest level of education fell short of a secondary school diploma declined in 2001 by 301 000 compared with 1990, for a decrease of 32.5%.

Table 6.1

Employment trends in Québec, by level of education[1] (in thousands)

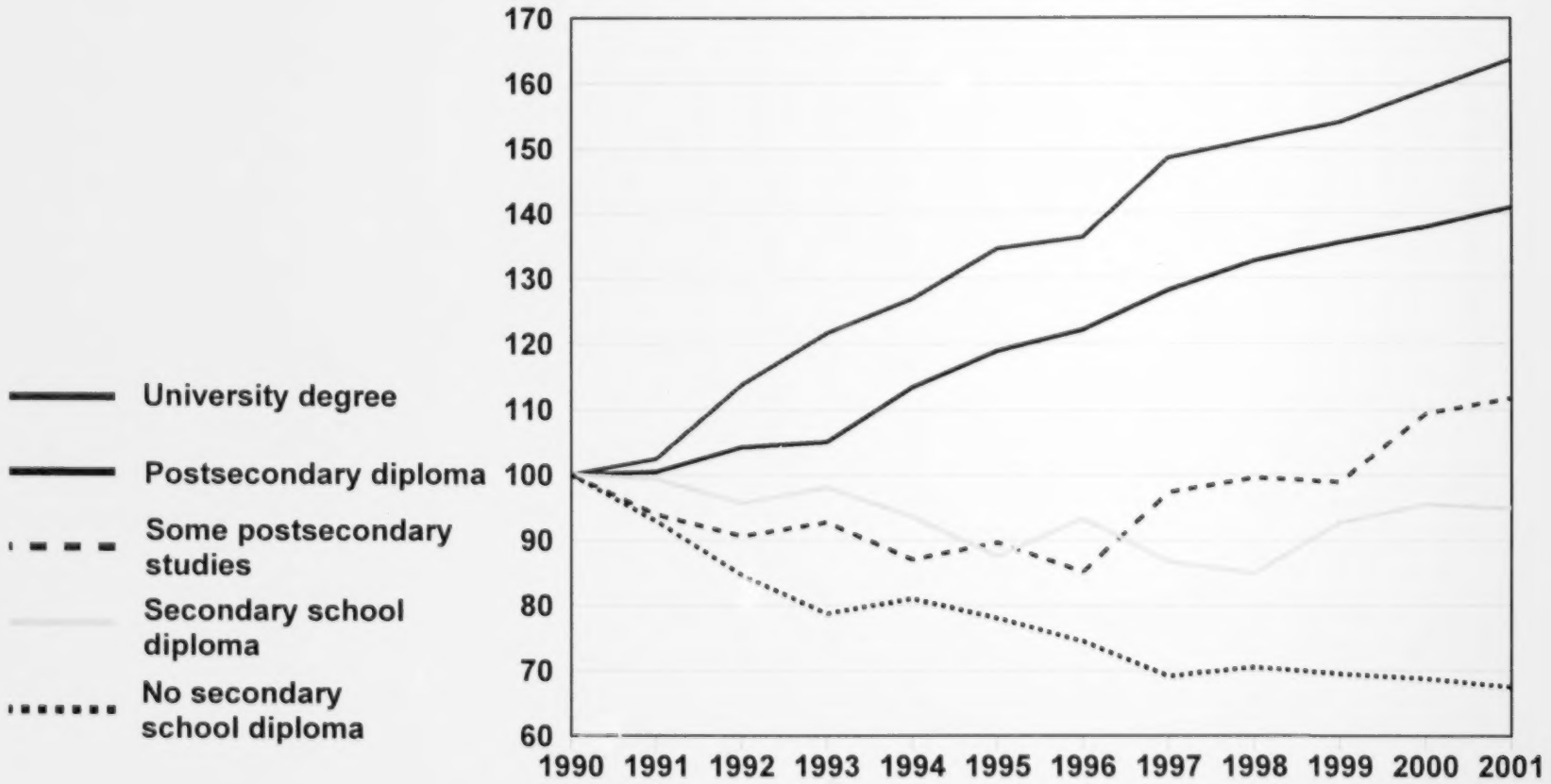
Year	No secondary school diploma	Secondary school diploma	Some postsecondary studies	Postsecondary diploma	University degree	Total
1990	927	632	257	910	416	3 141
1992	784	604	233	948	473	3 042
1995	723	553	230	1 082	560	3 148
2000	638	604	281	1 254	661	3 438
2001	626	600	287	1 282	681	3 476
Change from 1990 to 2001	- 32.5%	- 5.1%	11.7%	40.9%	63.7%	10.6%

Source: Statistics Canada

1. See notes 1, 2 and 3 at the bottom of the text.

Graph 6.1

Employment trends in Québec, by level of education (1990 = 100)



6.2 Labour Force Attachment by Level of Education[1]

In 2001,[2] approximately one out of every five jobs in Québec (18.0%) was held by a person who had not finished secondary school. Approximately one out of every four jobs (25.6%) was held by a person having finished secondary school or begun postsecondary studies. More than half of all jobs (56.4%) were held by people with a postsecondary diploma or university degree.

In 2001, more than half of all jobs in Québec were held by people with a postsecondary diploma or university degree.

Of the 19.6% who had a university degree, 14.3% had a bachelor's degree and 5.3% had a higher degree.

The proportion of jobs in Québec held by individuals who did not finish secondary school was 2.6 percentage points higher than in Ontario and 2.2 percentage points higher than in the other provinces; the proportion of jobs held by individuals with a secondary school diploma or who had begun postsecondary studies was lower by 5.6 and 6.9 percentage points, respectively; and the proportion of jobs held by individuals with a postsecondary diploma or university degree was higher by 3.0 and 4.7 percentage points, respectively.

The proportion of jobs in Québec held by postsecondary graduates was 5.6 percentage points higher than in Ontario and 3.1 percentage points higher than in the other provinces, while the proportion of jobs held by university graduates was 2.6 percentage points lower than in Ontario, but 1.6 percentage points higher than in the other provinces.

Of the university graduates, the proportion of those with bachelor's degrees was the same as in Ontario, but 1.8 percentage points higher than in the other provinces, while the proportion of people with higher degrees was 2.6 percentage points lower than in Ontario and 0.2 percentage points lower than in the other provinces.

The gaps between the proportion of jobs held by graduates of various levels in Québec with respect to Ontario and the other provinces in 2001 are smaller than those that existed 11 years earlier, in 1990. The gap between the proportion

1. According to Statistics Canada terminology, postsecondary studies include all programs leading to diplomas and certificates in the trades (including the Diploma of Vocational Studies) and exclude university studies. The university sector begins with programs leading to at least a bachelor's degree.
2. The figures for 2001 are an average of the first 10 months of that year.

of jobs held by individuals without a secondary school diploma in Québec decreased with respect to Ontario (by 0.2 percentage points) and with respect to the other provinces (by 2.2 percentage points). Secondly, the gaps between the proportion of postsecondary and university graduates increased by 0.9 percentage points with respect to Ontario and by 2.8 percentage points in relation to the other provinces. The gap between the proportion of jobs held by secondary school graduates increased with respect to Ontario and the other provinces (by 0.7 and 0.6 percentage points, respectively).

Table 6.2

Employment by highest level of education: Québec, Ontario and the other provinces, 1990 and 2001[1] (%)

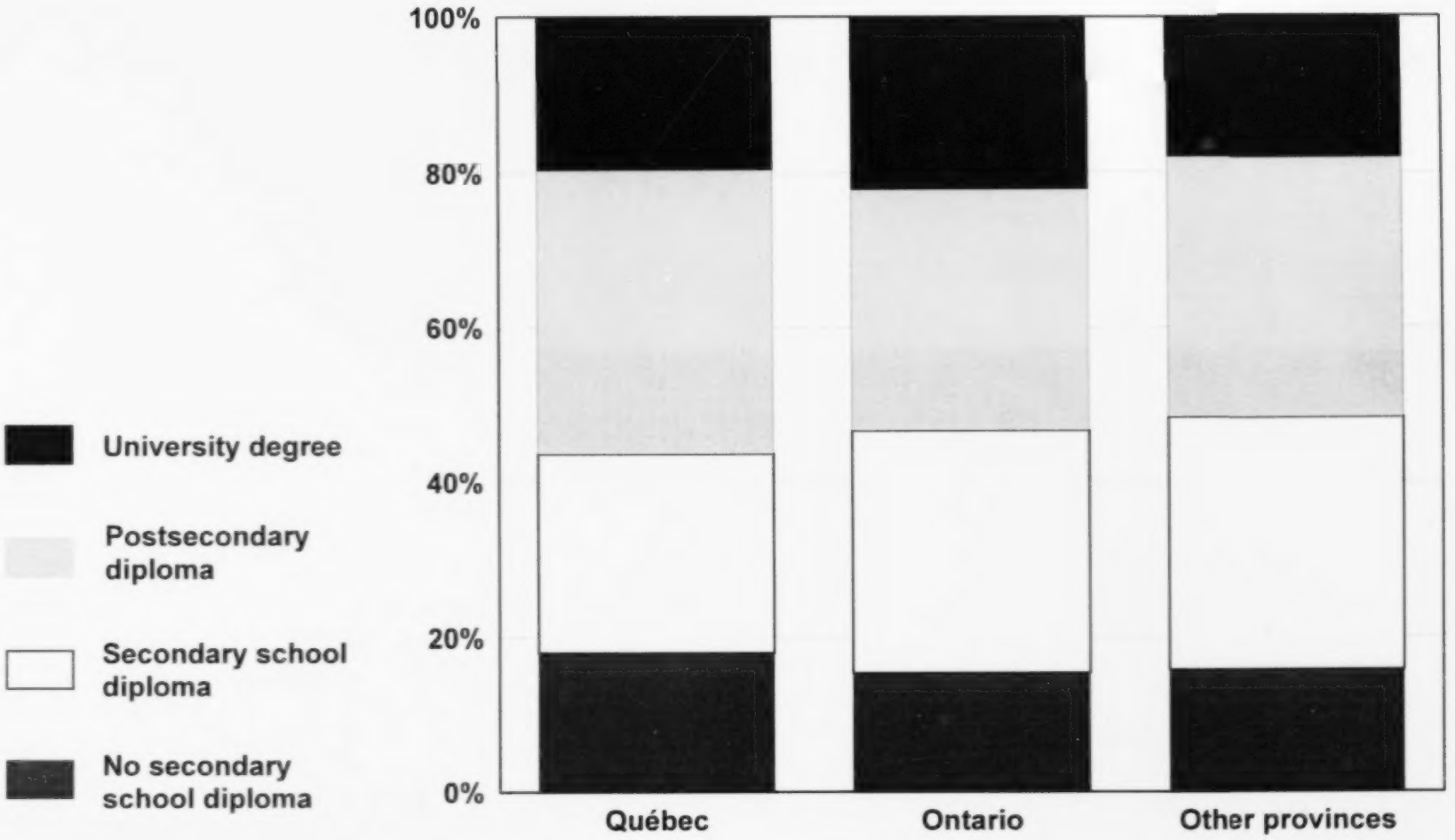
	Québec		Ontario		Other provinces	
	1990	2001	1990	2001	1990	2001
Total	100.0	100.0	100.0	100.0	100.0	100.0
No secondary school diploma	29.5	18.0	26.7	15.4	25.1	15.8
Secondary school diploma	20.1	17.3	23.0	22.2	24.3	21.5
Some postsecondary studies	8.2	8.3	10.2	9.0	10.3	11.0
Postsecondary diploma	29.0	36.8	24.0	31.2	27.0	33.7
University degree	13.2	19.6	16.1	22.2	13.3	18.0
Bachelor's degree	9.1	14.3	10.7	14.3	9.3	12.5
Higher degree	4.1	5.3	5.4	7.9	4.0	5.5

Source: Statistics Canada

1. See notes 1 and 2 at the bottom of the text.

Graph 6.2

Distribution of school leavers, by highest diploma earned: 2001 (%)



6.3 Labour Market Integration of Graduates

Since 1997, graduates of vocational, technical and university education had lower unemployment rates in 2001. Employers were more likely to hire graduates entering the labour market than in previous years.

From one year to the next, a large portion of the approximately 200 000 secondary school, college and university graduates enter the labour market. The data obtained through Québec government *Relance* studies provides a picture of the labor market integration of some 120 000 secondary school vocational education, college technical and pre-university education and university graduates a number of months after they obtain their diploma or degree.[1]

Since 1997, more than 84.7% of students with a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma [SSVD] prior to 1998) have found work. On March 31, 2001, 84.7% of students who graduated with a DVS were in the labour force (either working or looking for work), similar to the rate for 2000. The unemployment rate for those with a DVS has been in decline since 1997, going from 24.2% in 1997 to 12.3% in 2001.

The situation of students with an Attestation of Vocational Specialization (AVS) between 1997 and 2001 was similar to that of graduates with a DVS. The proportion of students with an AVS who were in the labour force was 86.5%, a drop from the rate of 86.9% in 2000. After having declined from 1997 to 1999, the unemployment rate among this section of the population remained unchanged in 2000, at 12.4%. It was 10.7% in 2001.

In 2001, 75.4% of students who graduated from a college technical program with a Diploma of College Studies (DCS) were in the labour force, a decrease with respect to the figures observed between 1997 and 2000. The unemployment rate for these individuals has been dropping since 1997 and went from 11.1% in 1997 to 5.4% in 2001.

Since 1997, 13.4% to 18.1% of students who graduated from a college pre-university program have been in the labour force. In 2001, 78.6% of them went on to university without interrupting their studies. The unemployment rate for

1. Results refer to students graduating in the year indicated, 9 months after the completion of studies for graduates with a DVS or an AVS and roughly 10 months for graduates with a DCS (15 months for those finishing in the fall). The situation for those graduating with a bachelor's, master's or doctoral degree is as of January, approximately 20 months after they obtained their degree.

graduates from a pre-university program, which had been falling from 1997 to 2000, rose from 4.5% in 2000 to 10.5% in 2001.

Since 1992, more than 77.6% of students with a bachelor's degree have entered the labour force. In 2001, 77.6% of them did so, compared with 80.8% in 1999. The unemployment rate fell considerably during the 1990s; it went from 11.4% in 1994 to 4.0% in 2001.

In 2001, 82.3%, of students with a master's degree entered the labour force, a drop from the 86.1% observed in 1999. The unemployment rate, which had risen between 1994 and 1997, was 7.4% in 1999. The unemployment rate in 2001 fell by half, compared with the 1999 rate.

In 2001, 91.5% of graduates with doctorates entered the labour force. Their unemployment rate in January 2001 was 6.2%, a slightly higher rate than that observed for graduates with bachelor's or master's degrees.

Overall, a comparison of the unemployment rates of secondary school vocational education, college technical and pre-university education and university graduates with those observed for the labour force as a whole in Québec in the late 1990s indicates that the situation of recent graduates has improved, except for those from college pre-university education (see Table 6.3 and Graph 6.3).

Table 6.3

Unemployment rates for graduates, by level of education and type of diploma or degree (%)

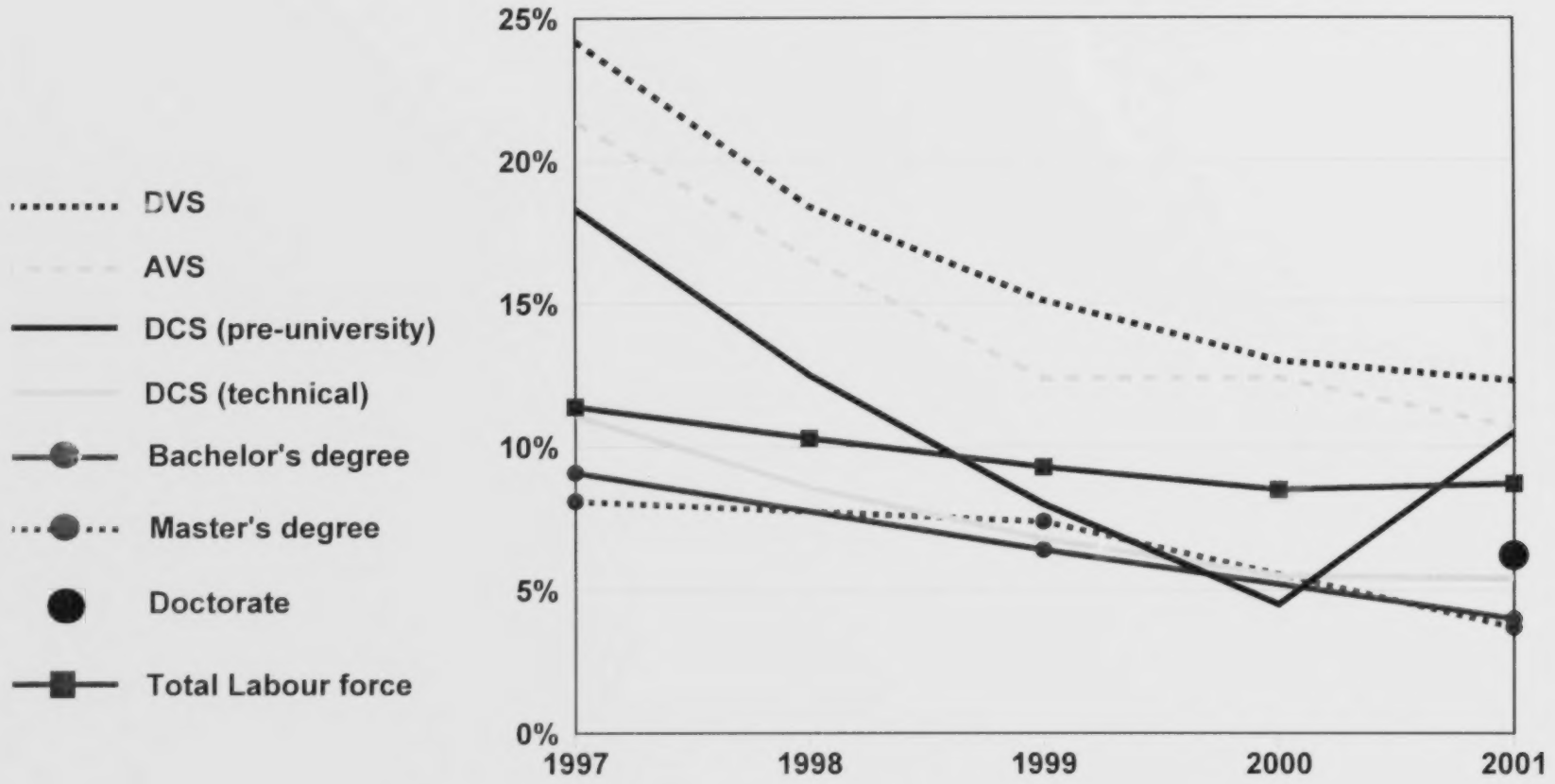
	1997	1998	1999	2000	2001
Secondary education					
DVS	24.2	18.4	15.1	13.0	12.3
AVS	21.4	16.6	12.4	12.4	10.7
College					
Pre-university education	18.3	12.5	8.1 [2]	4.5	10.5
Technical education	11.1	8.6	6.8	5.5	5.4
University					
Bachelor's degree	9.1	–	6.4	–	4.0
Master's degree	8.1	–	7.4	–	3.7
Doctorate	–	–	–	–	6.2
Unemployment rate in Québec [1]					
15-19-year olds	27.4	23.7	21.3	18.5	18.7
20-24-year olds	15.7	14.2	12.7	11.6	10.7
25-34-year olds	11.2	9.7	8.7	8.1	7.8
Total labour force	11.4	10.3	9.3	8.5	8.7

1. Data obtained from Statistics Canada. Includes the total labour force, regardless of level of education and work experience. For 2001, the unemployment rates are calculated on the basis of an average for the first 10 months; for the other years, the average for the first 11 months is used.
2. Revised data

–: Data not available

Graph 6.3

Unemployment rate among graduates, by level of education and type of diploma or degree (%)



6.4 Labour Market Integration of Secondary Vocational Education Graduates

On March 31, 2001, about nine months after graduation, 74.3% of graduates of programs leading to a Diploma of Vocational Studies (DVS) were employed, as were 77.2% of graduates of programs leading to an Attestation of Vocational Specialization (AVS), a slight increase with respect to 2000.

The unemployment rates for graduates with a DVS or AVS have decreased since 1997: they were 12.3% and 10.7%, respectively, in 2001. The unemployment rates for 2001 are similar to those for the Québec labour force.

A decline of 10.3% in the number of new graduates with a DVS was observed in 2001. The number of graduates in the *Relance* survey for secondary vocational education went from 28 743 in 2000 to 25 792 in 2001. Proportionally speaking, however, the number of jobs held by these graduates suffered a less rapid decline between 2000 and 2001 than the number of graduates themselves. The number of jobs decreased by 9.3%, from 21 151 in 2000 to 19 175 in 2001.

On March 31, 2001, 74.3% of graduates of programs leading to a DVS were employed, 10.4% were looking for a job, 11.1% were studying and 4.2% were inactive. The proportion of individuals with a DVS who were in the labour force (employed or seeking employment) was 84.7%, a rate comparable to that recorded in 2000. The unemployment rate for DVS graduates has been in decline since 1997, decreasing by almost half from 24.2% in 1997 to 12.3% in 2001.

A total of 87.7% of DVS graduates were employed full-time in 2001. This percentage has been increasing steadily since 1997, when it stood at 81.9%. There is an obvious trend throughout: more men than women are employed full-time. Since 1997, the percentage of men employed full-time rose from 91.5% and 95.2%, compared with 69.7% and 78.1% for women.

Between 1997 and 2001, the correspondence between the field of study and the field of employment increased from 68.0% to 77.0% among DVS graduates working full-time. This trend has been more favourable for men than women.

According to the *Relance* survey, the number of new AVS graduates dropped by 18.9% to 3 287 in 2001 from 4 055 in 2000. The number of jobs held by AVS graduates declined by 17.8%, from 3 086 in 2000 to 2 537 in 2001.

On March 31, 2001, 77.2% of the class of 1999-2000 who graduated from programs leading to an AVS were employed, 9.3% were looking for a job, 7.5% studying and 6.1% were inactive. The rate of AVS graduates in the labour force in 2001 is comparable to that for 2000 (86.5% and 86.9%, respectively). After dropping between 1997 and 1999, the unemployment rate for AVS graduates remained steady in 2000 at 12.4%. It dropped to 10.7% in 2001.

A total of 84.8% of employed AVS graduates were working full-time in 2001, compared with 86.4% in 2000. While the situation of women improved in 2001, there is a large gap between the full-time employment rate of women (75.7%) and that of men (93.8%).

The correspondence between the field of study and the field of employment for AVS graduates decreased slightly, going from 76.2% in 2000 to 74.5% in 2001. The situation of women, however, improved in 2001: the proportion of women employed in their field increased from 70.1% in 2000 to 71.4% in 2001, while for men, it dropped from 79.6% to 76.9%.

The proportion of graduates with a DVS or AVS under the age of 20 who were employed in 2001 was 73.0%, while 7.5% were looking for a job, 17.2% were studying and 2.4% were inactive. Among this age group, the proportion of graduates with a DVS or AVS in the labour force was 80.5% in 2001, comparable to the 80.8% observed in 2000. The unemployment rate for this age group was still lower than that of DVS and AVS graduates taken as a whole: it has been declining since 1997 and stood at 9.3% in 2001.

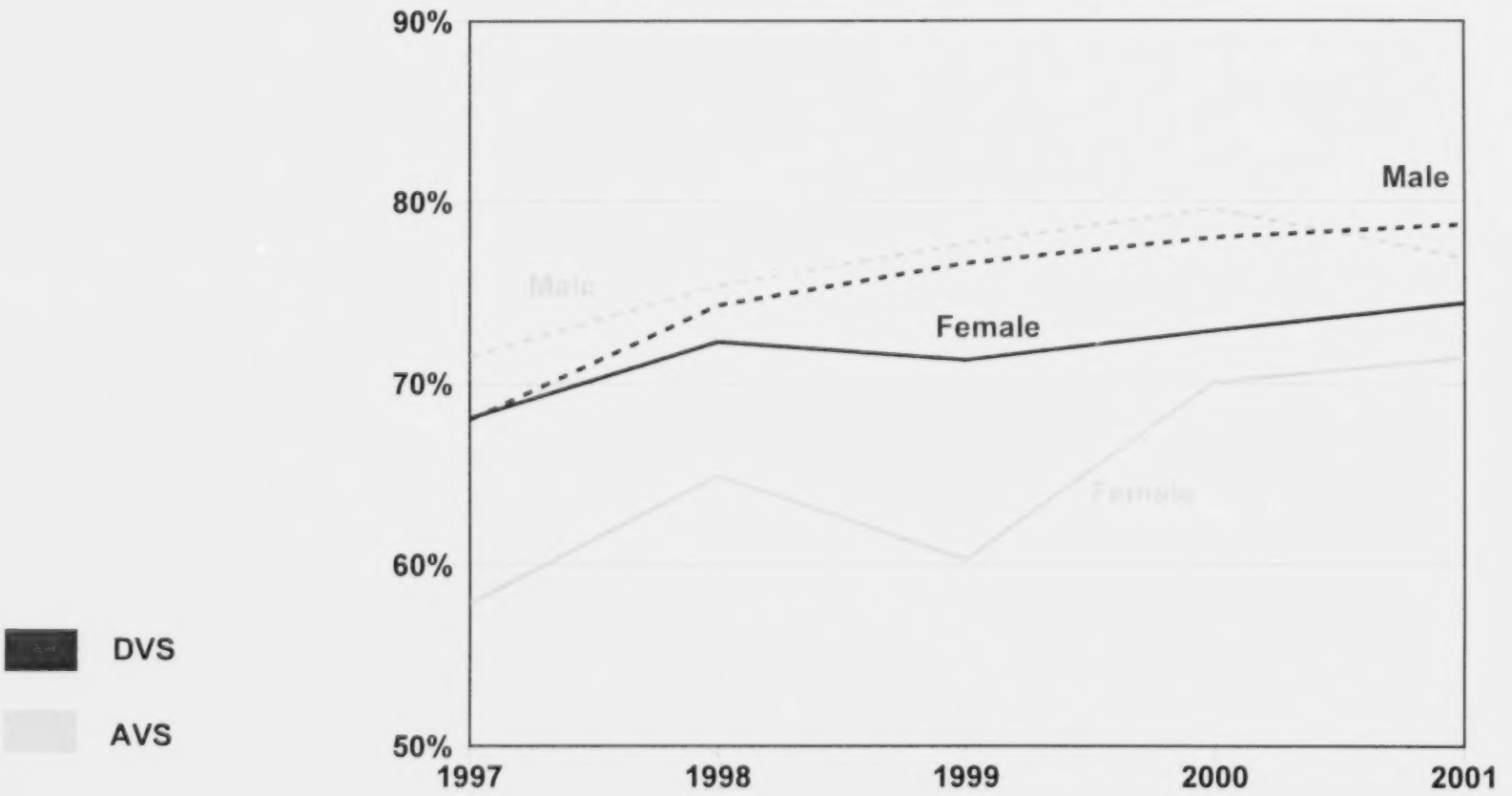
Table 6.4

Employment situation of secondary school vocational education graduates, by graduating class, as at March 31 of the year following their graduation (%)

	1997	1998	1999	2000	2001
Graduates with a DVS (formerly SSVD)					
Employed	65.6	73.2	74.5	73.6	74.3
Seeking employment	21.0	16.5	13.3	11.0	10.4
Studying	8.1	6.0	8.3	11.1	11.1
Inactive	5.3	4.3	3.9	4.3	4.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	24.2	18.4	15.1	13.0	12.3
Graduates with an AVS					
Employed	69.5	74.3	77.3	76.1	77.2
Seeking employment	18.9	14.8	10.9	10.8	9.3
Studying	6.3	5.8	6.8	8.0	7.5
Inactive	5.3	5.1	5.0	5.1	6.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	21.4	16.6	12.4	12.4	10.7
Graduates with a DVS or AVS under the age of 20					
Employed	69.9	75.8	76.1	72.2	73.0
Seeking employment	15.1	12.9	10.2	8.6	7.5
Studying	11.6	8.3	11.3	16.3	17.2
Inactive	3.3	3.0	2.5	2.9	2.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	17.8	14.5	11.8	10.7	9.3

Graph 6.4

Proportion of DVS and AVS graduates working full-time who worked in a related field of study as at March 31 of the year following their graduation, by gender (%)



6.5 Labour Market Integration of College Graduates

The percentage of graduates of technical programs who were employed approximately 10 months after they obtained a Diploma of College Studies (DCS) was on the decline as of March 31, 2001. It went from 74.1% in 2000 to 71.3% in 2001. In comparison, 13.1% of college pre-university graduates were employed in 2001, down from 15.8% in 2000.

The unemployment rate among graduates of college technical programs has decreased by more than half since 1997, from 11.1% to 5.4%. The unemployment rates observed since 1997 are lower than those for Québec's labour force.

According to the *Relance* survey of graduates from college technical education, the number of graduates increased every year between 1997 and 2001. Proportionally speaking, however, the number of jobs held by these graduates grew less rapidly than the number of graduates themselves from 2000 to 2001. Thus, between 2000 and 2001, the number of jobs obtained by college technical program graduates decreased by 0.3%, from 11 408 to 11 370, while the number of college graduates increased by 3.5%, from 15 404 to 15 942.

In 2001, 71.3% of graduates were employed, while 4.1% were looking for a job, 22.8% were studying and 1.8% were inactive. The percentage of college technical program graduates in the labour force (either working or looking for a job) has declined, going from 78.5% in 2000 to 75.4% in 2001. The unemployment rate of college technical graduates has fallen by more than half during this period, from 11.1% in 1997 to 5.4% in 2001. The unemployment rate of graduates aged 24 or younger is slightly lower than that of all age groups taken together (4.9% compared with 5.4% in 2001). Among this age group, the proportion of graduates with a DCS from a technical program was 83.4% in 1999-2000.

The percentage of students who, after obtaining a DCS in technical education the previous year, were studying on March 31 of the year in question rose from 19.0% in 1997 to 22.8% in 2001. Most of these students, 82.1%, were in university, 13.9% were in technical education and 2.2% were in pre-university education. Of those in university on March 31, 2001, 88.2% were studying in a field related to the diploma earned in 1999-2000. Of those in technical education, 74.1% were also studying in a field related to the diploma earned in 1999-2000. Finally, 6.2% of those studying on March 31, 2001 were there because they were unable to find a job.

In 2001, 88.8% of graduates from a college technical program were employed full-time. This percentage has grown steadily since 1997, when it stood at 78.6%. And, although it has increased more rapidly among women than men, men were more likely to be employed full-time (95.1%) than women (84.9%) in 2001. Since 1998, the correspondence between the field of study and the field of employment has been obvious: in 2001, 85.3% of full-time jobs, that is, 84.8% among men and 85.7% among women, were related to the training received. In 2001, 44.2% of part-time workers were employed part-time because they could not find a full-time job.

In 2001, 13.1% of graduates of college pre-university programs were employed about ten months after graduation, while 0.7% were looking for a job, 84.1% were studying and 1.2% were inactive. Further education is the main goal of graduates of pre-university programs.

In 2001, 14.6% of students who graduated from a college pre-university program entered the labour force. The unemployment rate among these individuals was 10.5% in 2001, an increase in relation to figures for 1999 and 2000.

Of the 84.1% of pre-university education graduates who pursued their studies in 2001, 93.1% were in university. Only 2.2% of graduates still in school on March 31, 2001, were there because they could not find a job.

Table 6.5

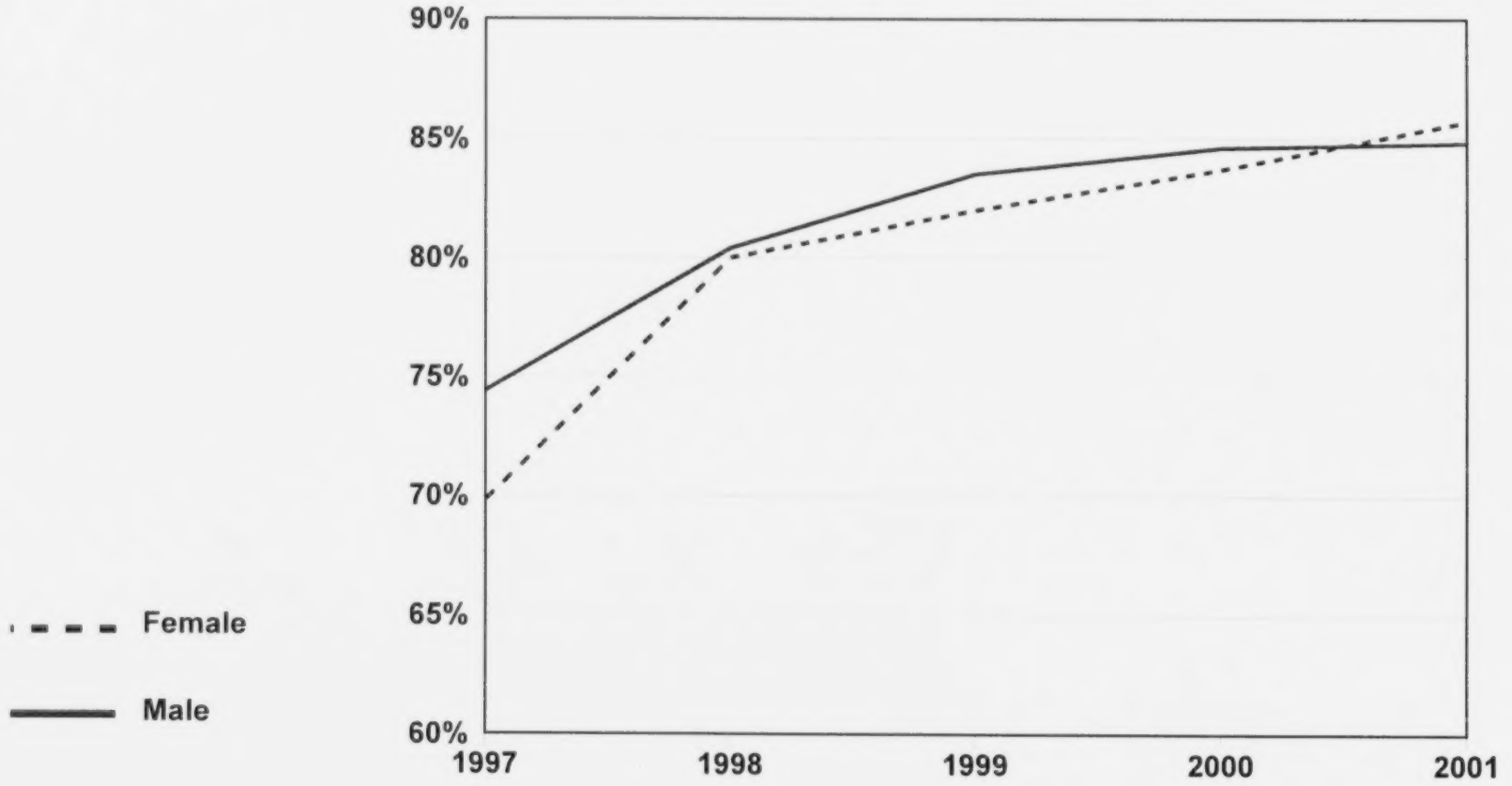
Employment situation of college graduates, by graduating class, as at March 31 of the year following completion of their studies (%)

	1997	1998	1999	2000	2001
Graduates with a DCS in a technical program					
Employed	69.8	71.6	73.2	74.1	71.3
Seeking employment	8.7	6.7	5.3	4.3	4.1
Studying	19.0	19.0	19.3	19.6	22.8
Inactive	2.5	2.7	2.2	2.0	1.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	11.1	8.6	6.8	5.5	5.4
Graduates with a DCS in a pre-university program					
Employed	14.8	13.9	12.3[1]	15.8	13.1
Seeking employment	3.3	2.0	1.1[1]	0.7	1.5
Studying	79.9	81.6	85.2[1]	82.8	84.1
Inactive	2.0	2.5	1.4[1]	0.7	1.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	18.3	12.5	8.1[1]	4.5	10.5

1. Revised data

Graph 6.5

Proportion of DCS graduates of technical programs working full-time who worked in a related field of study as at March 31 of the year following their graduation, by gender (%)



6.6 Labour Market Integration of University Graduates

The percentage of graduates of bachelor's, master's and doctoral programs who were employed approximately 20 months after they obtained their degree was 74.5%, 79.2% and 85.9%, respectively, during the week of January 14 to 20, 2001.

The unemployment rates for 2001 for graduates with bachelor's, master's or doctoral degrees were 4.0%, 3.7% and 6.2%, respectively; these rates were lower than the 8.7% observed for Québec's labour force as a whole.

A total of 74.5% of the graduates with bachelor's degrees were employed, while 3.1% were looking for a job; therefore, 77.6% of these graduates were in the labour force. The labour force participation rate was lower in 2001 compared with preceding years: it varied between 80.5% and 81.4% between 1992 and 1999. The unemployment rate for these individuals has been in decline since 1994, going from 11.4% to 4.0%. The unemployment rate for 2001 compares favourably with that of Québec's labour force as a whole, which stood at 8.7%.

A total of 79.2% of the graduates with master's degrees were employed, while 3.1% were looking for a job. The labour force participation rate of 82.3% in 2001 was lower than the 86.1% recorded in 1999. The unemployment rate for these individuals has been declining since 1997, going from 8.1% to 3.7%. The unemployment rate for 2001 compares favourably with the 8.7% recorded for Québec's labour force as a whole.

A total of 85.9% of the graduates with doctoral degrees were employed, while 5.7% were seeking employment. In 2001, 91.5% of graduates with doctoral degrees were in the labour force. The unemployment rate for graduates with a doctorate was 6.2%, slightly higher than the rate for graduates with a bachelor's or master's degree for the same year. Nevertheless, the unemployment rate compares favourably with that of Québec's labour force as a whole for 2001.

The percentage of graduates with a bachelor's, master's or doctoral degree who were still in school during the week of January 14 to 20, 2001, was 19.8%, 15.2% and 4.8%, respectively.

In the case of graduates with a bachelor's degree, 62.8% had enrolled in a master's program, 18.1% in a bachelor's program, 7.1% in a doctoral program and 12.0% in other types of studies (e.g. postdoctoral). Of those who graduated

with a bachelor's degree in 1999, 94.1% and 90.4% were enrolled in a master's or doctoral program, respectively, in a field related to the degree earned in 1999 during the week of January 14 to 20, 2001.

Some 73.4% of graduates with a master's degree and 77.8% with a doctorate enrolled in a doctoral program. Of those in a doctoral program during the week of January 14 to 20, 2001, 95.7% of the master's graduates and 100.0% of the doctoral graduates were studying in a field related to the degree earned in 1999.

Of the graduates with a bachelor's, master's or doctoral degree who were pursuing their studies in 2001, 10.4%, 13.1% and 33.3%, respectively, were there because they could not find a job.

In 2001, the proportion of graduates with a bachelor's, master's or doctoral degree employed full-time was 85.9%, 89.8% and 88.3%, respectively. More men than women were employed full-time in 2001. During the week of January 14 to 20, 2001, 81.9%, 85.1% and 93.5%, respectively, of these 1999 graduates who were employed full-time considered they had a job related to their field of study.

In 2001, the proportion of men and women who worked part-time because they were not able to find full-time employment was 33.6% for those with bachelor's degree, 29.8% for those with a master's degree and 29.5% for those with a doctorate.

Table 6.6

Employment situation of university graduates, by graduating class, in January, two years following completion of their studies (%)[1]

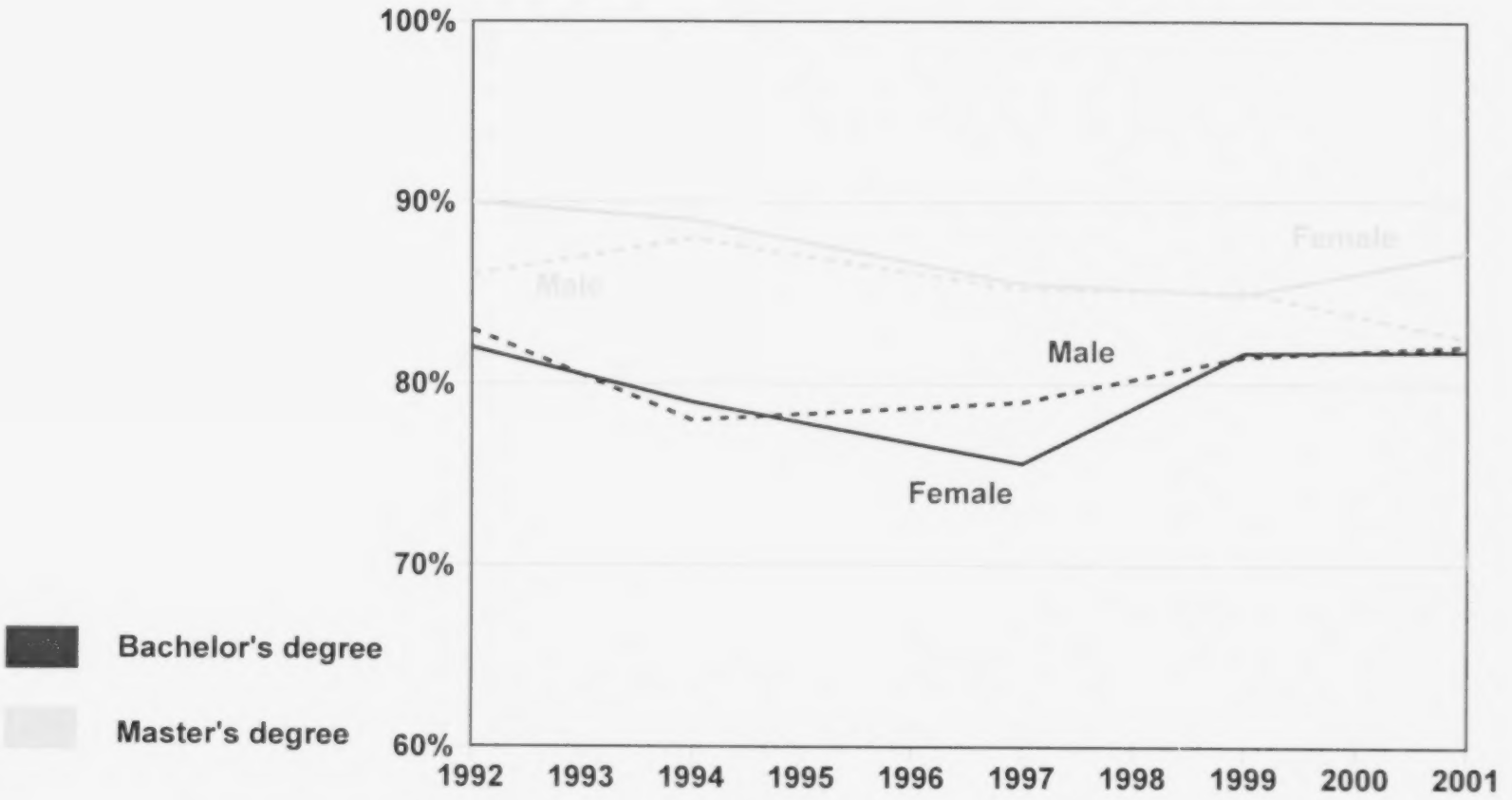
	1992	1994	1997	1999	2001
Graduates with a bachelor's degree					
Employed	73.4	71.3	74.0	75.6	74.5
Looking for work	7.2	9.2	7.4	5.1	3.1
In school	16.9	16.5	16.2	16.6	19.8
Not in the labour force	2.5	3.0	2.4	2.7	2.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	8.9	11.4	9.1	6.4	4.0
Graduates with a master's degree					
Employed	79.2	77.0	77.7	79.7	79.2
Looking for work	5.2	5.6	6.8	6.4	3.1
In school	14.1	15.0	12.7	11.7	15.2
Not in the labour force	1.5	2.4	2.8	2.2	2.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	6.2	6.8	8.1	7.4	3.7
Graduates with a doctorate					
Employed	–	–	–	–	85.9
Looking for work	–	–	–	–	5.7
In school	–	–	–	–	4.8
Not in the labour force	–	–	–	–	3.7
Total	–	–	–	–	**100.0**
Unemployment rate	–	–	–	–	6.2

1. Refers to university graduates approximately two years after they have earned their degree. For example, students who graduated in 1999 had given their situation between January 14 and 20, 2001.

–: Data not available

Graph 6.6

Proportion of graduates with a bachelor's or master's degree working full-time who worked in a related field of study in January, two years following their graduation, by gender (%)



Statistical Appendix

Table 1
Full-time and part-time enrollment, by level of education and sector, 1991-1992 to 2000-2001

Table 2
Full-time and part-time enrollment, by category of institution, language of instruction, level of education and sector, 2000-2001

Table 3
Enrollment in secondary vocational education and college technical education, 1993-1994 to 2000-2001

Table 4
Personnel in school boards, CEGEPs and universities by job category, based on full-time equivalents, 1992-1993 to 1999-2000

Table 5
Number of diplomas awarded, by level of education and type of diploma, 1991 to 2000

Table 6
Schooling rates, by age, gender, level of education and attendance status, 1999-2000 (%)

Table 1

Full-time and part-time enrollment, by level of education and sector, 1991-1992 to 2000-2001

	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001
Preschool (4-year-olds)	**7 598**	**8 002**	**8 151**	**14 023**	**17 284**	**17 294**	**16 295**	**15 908**	**15 174**	**14 601**
Preschool (5-year-olds)	**85 276**	**83 530**	**85 316**	**89 912**	**95 651**	**96 087**	**95 303**	**91 513**	**89 223**	**87 297**
Elementary education (youth sector)	**576 601**	**566 448**	**555 417**	**547 395**	**547 642**	**552 482**	**559 279**	**566 372**	**573 102**	**575 862**
Secondary education (youth sector)	**478 571**	**495 331**	**498 306**	**498 105**	**492 629**	**486 696**	**479 740**	**469 250**	**456 148**	**447 937**
Elementary and secondary education (adult sector)[1]	**248 825**	**223 651**	**222 531**	**223 886**	**226 317**	**222 434**	**218 193**	**214 701**	**219 268**	**222 395**
College[2]	**242 333**	**251 391**	**254 874**	**247 436**	**241 833**	**237 456**	**231 043**	**228 712**	**219 248**	**212 555**
Regular education	161 744	172 061	179 036	180 976	178 847	180 063	176 351	174 258	171 448	166 866
Adult education	80 589	79 330	75 838	66 460	62 986	57 393	54 692	54 454	47 800	45 689
University[3]	**249 048**	**256 426**	**253 344**	**244 531**	**237 810**	**230 941**	**226 977**	**226 638**	**231 897**	**233 463**
Undergraduate studies	209 825	214 856	210 759	201 418	194 196	187 565	183 370	183 157	187 014	187 514
Graduate studies	31 469	33 334	33 782	34 021	34 271	34 086	34 281	34 558	36 120	37 192
Postgraduate studies	7 754	8 236	8 803	9 092	9 343	9 290	9 326	8 923	8 763	8 757
Total	**1888 252**	**1884 779**	**1877 939**	**1865 288**	**1859 166**	**1843 390**	**1826 830**	**1813 094**	**1804 060**	**1794 110**

Sources: Déclaration des clientèles scolaires (DCS)
Déclaration des clientèles en formation professionnelle (DCFP)
Système d'information du Ministère sur les clientèles adultes (SIMCA)
Système d'information financière sur la clientèle adulte (SIFCA)
Système d'information et de gestion des données sur l'effectif collégial (SIGDEC)
Système de recensement des clientèles universitaires (RECU)

1. Only persons having taken courses for which credits are earned for certification purposes are included.
2. Fall term. Figures for adult education exclude students enrolled in noncredit programs.
3. Fall term. These figures include resident physicians and some students in college or Explorations programs. However, they exclude auditors, postdoctoral trainees, students in Explorations programs and students from the Collège militaire Royal de Saint-Jean.

Table 2

Full-time and part-time enrollment, by category of institution, language of instruction, level of education and sector, 2000-2001

	Preschool		Elementary	Secondary	Elementary and secondary	College[2]		University[3]	Total
	4-year-olds	5-year-olds	(Youth sector)	(Youth sector)	(Adult sector[1])	Regular education	Adult education		
School boards	**14 397**	**83 073**	**546 444**	**373 504**	**218 879**				**1 236 297**
French	13 290	73 721	488 318	334 221	197 542				1 107 092
English	839	8 789	56 695	39 281	21 126				126 730
Native languages	268	563	1 431	2	211				2 475
Private institutions	**52**	**4 010**	**27 831**	**73 343**	**2 868**	**14 109**	**10 112**		**132 325**
French	20	3 231	22 309	66 031	2 603	8 051	3 516		105 761
English	32	779	5 522	7 312	265	2 764	106		16 780
French and English						3 294	6 490		9 784
Public institutions outside the jurisdiction of the Ministère de l'Education	**152**	**214**	**1 587**	**1 090**	**648**	**1 912**	**74**		**5 677**
French	60	107	1 257	1 013	648	1 815	74		4 974
English	18	22	134	77		97			348
Native languages	74	85	196						355
CEGEPs and campuses						**150 845**	**35 503**		**186 348**
French						128 265	30 832		159 097
English						22 580	4 671		27 251
French and English									
Universities and branches								**233 463**	**233 463**
French								177 226	177 226
English								56 237	56 237
Total	**14 601**	**87 297**	**575 862**	**447 937**	**222 395**	**166 866**	**45 689**	**233 463**	**1 794 110**
French	13 370	77 059	511 884	401 265	200 793	138 131	34 422	177 226	1 554 150
English	889	9 590	62 351	46 670	21 391	25 441	4 777	56 237	227 346
Native languages	342	648	1 627	2	211				2 830
French and English						3 294	6 490		9 784

Sources: Déclaration des clientèles scolaires (DCS)
Déclaration des clientèles en formation professionnelle (DCFP)
Système d'information du Ministère sur les clientèles adultes (SIMCA)
Système d'information financière sur la clientèle adulte (SIFCA)
Système d'information et de gestion des données sur l'effectif collégial (SIGDEC)
Système de recensement des clientèles universitaires (RECU)

1. Only persons having taken courses for which credits are earned for certification purposes are included.
2. Fall term. Figures for adult education exclude students enrolled in noncredit programs.
3. Fall term. These figures include resident physicians, but exclude auditors, postdoctoral trainees and students in Explorations programs.

Table 3

Enrollment in secondary vocational education and college technical education, 1993-1994 to 2000-2001

	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001p
SECONDARY EDUCATION[1]	**85 026**	**86 018**	**86 900**	**88 690**	**93 274**	**94 263**	**99 884**	**95 668**
Under 20 years of age[2]	18 840	19 655	22 376	25 751	26 923	26 476	26 031	25 489
20 years of age or over[3]	66 546	66 363	64 524	62 939	66 351	67 787	73 853	70 179
Regular paths: DVS (SSVD), SSVC, AVS, AVE	**58 023**	**59 771**	**66 950**	**72 990**	**75 786**	**77 127**	**75 890**	**76 351**
Under 20 years of age[2]	16 871	18 015	20 921	24 530	25 818	25 208	24 623	24 318
20 years of age or over[3]	41 152	41 756	46 029	48 460	49 968	51 919	51 267	52 033
Other programs	**27 003**	**26 247**	**19 950**	**15 700**	**17 488**	**17 136**	23 994	**19 317**
Under 20 years of age[2]	1 609	1 640	1 455	1 221	1 105	1 268	1 408	1 171
20 years of age or over[3]	25 394	24 607	18 495	14 479	16 383	15 868	22 586	18 146
COLLEGE	**116 637**	**115 740**	**120 792**	**122 069**	**123 683**	**125 965**	121 714	**119 157**
Diploma of College Studies (DCS-technical)	84 916	87 388	89 319	90 318	90 815	90 292	88 843	87 652
Certificat d'études collégiales (CEC)	10 576	8 517	7 338	1 209	280	60	14	-
Attestation of College Studies (ACS)	20 932	19 757	24 041	30 540	32 583	35 613	32 857	31 505
Diplôme de perfectionnement de l'enseignement collégial (DPEC)	213	78	94	2	8	-	1	-

Sources: Déclaration des clientèles scolaires (DCS)
Déclaration des clientèles en formation professionnelle (DCFP)
Système d'information du Ministère sur les clientèles adultes (SIMCA)
Système d'information financière sur la clientèle adulte (SIFCA)
Système d'information et de gestion des données sur l'effectif collégial (SIGDEC)

p: Preliminary figures
DVS: Diploma of Vocational Studies (or SSVD: Secondary School Vocational Diploma); SSVC: Secondary School Vocational Certificate; AVS: Attestation of Vocational Specialization; AVE: Attestation of Vocational Education.

1. Only persons having taken courses for which credits are earned for certification purposes are included. Persons enrolled in more than one program in the same year are counted only once.
2. Includes students 20 years of age or over in the youth sector.
3. For the adult sector only.

Table 4

Personnel in school boards, CEGEPs and universities by job category, based on full-time equivalents,[1] 1992-1993 to 1999-2000

	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
School boards	**108 418**	**107 487**	**106 934**	**105 919**	**104 379**	**104 462**	**106 629**	**108 451**
Youth and adult sectors								
Teaching staff	72 079	71 170	70 518	70 331	69 680	70 366	71 152	71 273
Administrative staff	1 514	1 479	1 452	1 388	1 274	1 159	1 118	1 194
School principals	3 878	3 804	3 820	3 753	3 647	3 528	3 567	3 498
Managerial staff	874	859	848	802	750	671	663	679
Nonteaching professionals	4 767	4 803	4 691	4 530	4 250	3 898	3 896	3 971
Support staff	25 306	25 372	25 605	25 115	24 778	24 840	26 233	27 836
CEGEPs	**20 820**	**21 304**	**21 771**	**21 245**	**20 472**	**19 570**	**19 692**	**19 869**
Regular education and adult education								
Teaching staff	12 863	13 405	13 919	13 652	13 224	12 699	12 892	12 950
Administrative staff	657	667	670	664	612	583	595	622
Managerial staff	323	335	327	307	287	245	230	232
Nonteaching professionals	1 095	1 127	1 146	1 085	1 047	964	964	1 017
Support staff	5 882	5 770	5 709	5 537	5 302	5 079	5 011	5 048
Universities[2]	**33 535**	**33 404**	**33 054**	**32 224**	**31 615**	**N/A**	**N/A**	**N/A**
Teaching and research staff	11 111	11 260	11 038	10 826	10 553	N/A	N/A	N/A
Teaching and research assistants	4 046	4 083	4 304	4 299	4 652	N/A	N/A	N/A
Executive personnel	1 347	1 348	1 305	1 291	1 218	N/A	N/A	N/A
Managerial staff	615	603	647	491	498	N/A	N/A	N/A
Nonteaching professionals	3 607	3 557	3 496	3 487	3 352	N/A	N/A	N/A
Support staff	12 809	12 553	12 264	11 830	11 342	N/A	N/A	N/A

Sources: Personnel des commissions scolaires (PERCOS II)
Système d'information sur le personnel des organismes collégiaux (SPOC-RFA)
Système d'information financière des universités (SIFU)

N/A: Data not available

1. All personnel activities carried out during the school year are included in the calculation of full-time equivalents for each job category.
2. Funds with or without restrictions. Excludes courses given by lecturers, those given in addition to regular course loads by regular professors and those given by individuals receiving honoraria or on contract. Figures from 1996-1997 are preliminary.

Table 5

Number of diplomas awarded, by level of education and type of diploma, 1991 to 2000

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Secondary[1]	**88 473**	**101 503**	**110 431**	**103 211**	**104 522**	**111 762**	**109 200**	**107 050**	**107 459**	**105 248**
General education	69 928	78 893	79 418	81 176	81 792	86 451	80 290	77 315	76 913	73 383
Vocational education	18 545	22 610	31 013	22 035	22 730	25 311	28 910	29 735	30 546	31 865
College	**41 769**	**43 294**	**44 686**	**44 683**	**43 230**	**40 947**	**42 657**	**41 849**	**41 949**	**38 997**
DCS (pre-university education)	25 244	25 414	24 971	25 833	25 559	24 389	25 889	25 100	24 530	22 552
DCS (technical education)	13 196	13 516	14 760	14 991	15 624	16 132	16 690	16 730	17 406	16 444
DCS without mention	1 053	1 228	1 541	741	331	150	7	1	-	
CEC and DPEC[2]	2 276	3 136	3 414	3 118	1 716	276	71	18	13	1
University[3]	**51 329**	**53 822**	**55 277**	**56 817**	**56 015**	**55 184**	**53 277**	**50 781**	**50 726**	**48 050**
Bachelor's degree	26 911	27 683	28 404	28 967	28 932	29 602	28 894	27 478	28 284	26 903
Master's degree	5 404	5 823	6 082	6 604	6 414	6 547	6 514	6 727	6 814	6 620
Doctorate	810	915	891	959	1 037	1 087	1 143	1 231	1 170	1 014
Certificates and diplomas	18 204	19 401	19 900	20 287	19 632	17 948	16 726	15 345	14 458	13 513

Sources: Système de sanction des études appliquée au ministère de l'Éducation (SESAME)
Sanction des adultes en formation générale (SAGE)
Système de la sanction des études au collégial (SSEC)
Système de recensement des clientèles universitaires (RECU)

DCS: Diploma of College Studies; CEC: certificat d'études collégiales (certificate of college studies);
DPEC: diplôme de perfectionnement de l'enseignement collégial (diploma of advanced college studies).

1. From 1989-1990 to 1998-1999. Following the vocational education reform, approximately 8 800 students with an SSVC (Secondary School Vocational Certificate) also received an SSVD (Secondary School Vocational Diploma) in 1993.
2. Since 1994, there have been no new enrollments in programs leading to these types of certification. ACSs (Attestations of College Studies) are not counted by the Ministère.
3. These figures exclude diplomas awarded by the Collège militaire Royal de Saint-Jean.

Table 6

Schooling rates,[1] by age, gender, level of education and attendance status, 1999-2000 (%)

	Preschool and Elementary Education	Secondary		College		University		Total		
		Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	All attendance statuses
4-year-olds										
Male	17,9	0,0	0,0	0,0	0,0	0,0	0,0	17,9	0,0	17,9
Female	18,3	0,0	0,0	0,0	0,0	0,0	0,0	18,3	0,0	18,3
Total	18,1	0,0	0,0	0,0	0,0	0,0	0,0	18,1	0,0	18,1
5-year-olds										
Male	97,7	0,0	0,0	0,0	0,0	0,0	0,0	97,7	0,0	97,7
Female	97,9	0,0	0,0	0,0	0,0	0,0	0,0	97,9	0,0	97,9
Total	97,8	0,0	0,0	0,0	0,0	0,0	0,0	97,8	0,0	97,8
15-year-olds										
Male	0,0	96,9	0,2	0,1	0,0	0,0	0,0	97,0	0,2	97,2
Female	0,0	97,6	0,1	0,1	0,0	0,0	0,0	97,7	0,1	97,8
Total	0,0	97,2	0,1	0,1	0,0	0,0	0,0	97,3	0,2	97,5
16-year-olds										
Male	0,6	89,6	2,5	1,4	0,0	0,0	0,0	91,6	2,5	94,1
Female	0,3	91,0	2,3	2,1	0,0	0,0	0,0	93,3	2,3	95,7
Total	0,5	90,2	2,4	1,7	0,0	0,0	0,0	92,5	2,4	94,9
17-year-olds										
Male	0,8	40,0	11,4	32,4	0,1	0,3	0,0	73,5	11,4	84,9
Female	0,4	30,6	9,6	48,5	0,1	0,6	0,0	80,1	9,7	89,7
Total	0,6	35,4	10,5	40,2	0,1	0,4	0,0	76,7	10,6	87,3
18-year-olds										
Male	0,8	24,3	10,8	36,1	0,3	2,1	0,1	63,3	11,2	74,5
Female	0,4	17,3	8,1	52,3	0,3	3,2	0,1	73,2	8,4	81,6
Total	0,6	20,9	9,5	44,0	0,3	2,7	0,1	68,1	9,8	78,0
19-year-olds										
Male	0,6	15,8	8,3	27,0	1,1	9,5	0,3	52,9	9,7	62,6
Female	0,4	11,5	5,9	34,7	1,3	17,2	0,3	63,7	7,6	71,4
Total	0,5	13,7	7,1	30,7	1,2	13,2	0,4	58,2	8,7	66,9

1. Schooling rates are calculated by dividing the school population of a given age on September 30, 1999, by the population of the same age on the same date. The rates for 4-year-olds and 5-year-olds differ from the results published in Section 2.3 (see notes in Section 2.3).

Table 6 (cont.)

Schooling rates,[1] by age, gender, level of education and attendance status, 1999-2000 (%)

	Preschool and Elementary Education	Secondary		College		University		Total		
		Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	All attendance statuses
20-to-24-year-olds										
Male	0,4	7,3	4,9	8,6	1,1	13,7	3,0	30,0	9,0	39,0
Female	0,3	5,4	3,2	9,2	1,4	19,9	3,1	34,8	7,7	42,6
Total	0,4	6,4	4,1	8,9	1,2	16,7	3,8	32,4	9,1	41,5
25-to-29-year-olds										
Male	0,3	2,8	3,0	1,8	0,4	4,2	3,4	9,1	6,8	15,8
Female	0,3	2,4	2,0	1,8	0,7	4,2	3,6	8,8	6,3	15,1
Total	0,3	2,6	2,5	1,8	0,6	4,2	4,2	8,9	7,3	16,2
30-to-39-year-olds										
Male	0,2	0,7	1,4	0,2	0,2	0,3	1,2	1,4	2,7	4,1
Female	0,2	0,9	0,9	0,3	0,6	0,4	1,2	1,8	2,7	4,5
Total	0,2	0,8	1,1	0,3	0,4	0,3	1,7	1,6	3,2	4,8
40-to-49-year-olds										
Male	0,2	0,7	1,4	0,2	0,2	0,3	1,2	1,4	2,7	4,1
Female	0,2	0,9	0,9	0,3	0,6	0,4	1,2	1,8	2,7	4,5
Total	0,2	0,8	1,1	0,3	0,4	0,3	1,7	1,6	3,2	4,8
50-to-59-year-olds										
Male	0,1	0,2	0,6	0,1	0,1	0,1	0,4	0,5	1,1	1,6
Female	0,2	0,3	0,4	0,1	0,2	0,1	0,4	0,6	1,0	1,6
Total	0,1	0,2	0,5	0,1	0,1	0,1	0,6	0,6	1,2	1,8
60 years of age or over										
Male	0,1	0,0	0,1	0,0	0,0	0,0	0,1	0,1	0,2	0,3
Female	0,1	0,0	0,2	0,0	0,0	0,0	0,1	0,2	0,2	0,4
Total	0,1	0,0	0,1	0,0	0,0	0,0	0,1	0,2	0,2	0,4